A Lecture
ON THE
PHYSIOLOGY AND PATHOLOGY OF THE OLFACTORY NERVE.

Delivered at the Hospital for Epilepsy and Paralysis, Regent's-park.

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GENTLEMEN,—The olfactory nerve, although the first in anatomy, is generally credited with being the least useful to man in a state of civilisation. Indeed, if we compare it with its more immediate associates—namely, the optic and auditory nerves, without which life, as we understand it now, could not be carried on,—it seems to recede into an immeasurable distance. If Prince Bismarck and M. Gambetta were to become suddenly blind and deaf, the destinies of Europe would no doubt be changed; while if these two men were to lose their smell and taste, things would probably go on much in the same manner as they do now. The sense of smell is, however, acknowledged to be of vital importance to animals. Sir John Lubbock has discovered that ants are, not only in their search for food, but also in their actions generally, guided by this sense, which resides in their antennæ. It is by the smell that they recognise friends and foes, and are impelled to do their work; for with the exception of the winged queens and their husbands, most ants are blind, and the world is known to them only as a succession of different and well-defined smells. Some fish, like the perch, trout, and salmon, are guided in their actions more by the sense of sight, which is largely developed in them; while the shark, on the other hand, is chiefly a smelling fish, its nose being so enormously developed that the mucous membrane of it, if unfolded, would cover an area of twelve feet square. In birds smell is rudimentary, and sight wonderfully keen; while moles have large organs of olfaction, and eyes scarcely indicated. Many herbivorous animals are enabled, by their keenly-developed sense of smell, to avoid poisonous plants, and select nutritious ones to feed upon. Smell to them is, as it were, the sentry of taste, guarding the approach to the palate. It informs animals of the manner in which a certain thing will affect them, so that they know what to seek and to avoid. It gives to rabbits, hares, deer, and other animals which have to rely for their safety rather on rapidity of flight than on their strength, early notice of the approach of an enemy, and thus affords time for escape from danger. The carnivorous class may, on the other hand, by the scent, detect their prey sooner, and surprise it more readily.

The sense is also of importance for the reproduction of the species, since animals of opposite sexes are thereby attracted to each other. This is more especially the case with the musk deer, the civet cat, and the beaver, whose preputial follicles secrete musk, civet, and castoreum, but it is more or less so with all animals whose sexual organs develop a peculiar pungent odour during the period of rut. For the dog the olfactory nerve is the great ruler of life. A dog which is deprived of smell may almost be said to have ceased to be a dog, for that animal, as Schiff has shown by section of the nerves in puppies, loses with its smell its faculty of attachment and faithfulness to its master, whom it recognises and loves simply on account of his individual perfume. Schiff's deolfactorised puppies were throughout life indifferent to their master, although he treated them with the greatest kindness.

No doubt the olfactory nerve is also of considerable use to man in a state of nature, in the same way as to animals; and the peculiar pigment which surrounds the terminations of the nerve, and appears to serve for a readier absorption of odours, is even now more developed in the coloured and savage races than in the white man, where the nerve is more rudimentary. The nostrils of negroes are particularly large, and contain sinuses for increasing the olfactory surface, which are not found in the Caucasian race.

To ourselves this nerve does not offer much protection, for some poisons, like hydrocyanic acid, have an agreeable odour, while we cannot distinguish edible from poisonous mushrooms by the smell. Yet it gives us a quick indication of a gas-escape in our dwelling-houses, and no doubt gas explosions have thereby been prevented. Nor should we forget that our arrangements for the disposal of sewage owe their perfected state in a great measure to the reminders which the nose has given us to attend to them; and indirectly, therefore, a vast number of lives have been saved by its instrumentality.

The olfactory nerve, however, comes chiefly into play during our meals—indeed, we appreciate the flavours of meat and drink solely by the olfactory, and not, as is commonly believed, by the gustatory nerve, which latter conveys to us only the four fundamental tastes of sweet, bitter, acid, and saline, but no aromas or flavours. The art of dining would therefore be lost if we were to be deprived of the sense of smell. Tea, coffee, wine, and other articles of diet which are chiefly appreciated for their flavour, would greatly decline in popularity. Our social life, in which dinners play so conspicuous a part, would assume an entirely different aspect; such a book as Brillat-Savarin's "Physiologie du Goût," which treats of the flavours of dishes, would become unintelligible, and we cannot, without shuddering, imagine the probable condition of the aldermanic mind if turtle soup were to become a vain conceit.

Dyspepsia and congestion of the liver would most likely increase rather than diminish if we had no smell, for although excesses at table are no doubt promoted by the pleasing flavour of the dishes put before us, and might, therefore, no longer occur in the same ratio as now, yet, on the other hand, we should certainly often partake of unsuitable and indigestible food, more especially of putrid meat and fish, if ourselves and our cooks were unable to discriminate by smelling that which is nasty from what is nice. Moreover, if eating gave us no pleasure, but were only done from necessity, we should probably fall into the habit of hurrying through our meals and bolting our food, which we know to be a prolific cause of indigestion.

The flavour of a fine cigar is only appreciated by the olfactory nerve, and smoking would therefore probably decline if we had no smell. As it is generally admitted that the temper of man is softened and soothed by tobacco, the coarser side of our nature might assert itself more if we were deprived of the "weed." Yet it is a singular fact that men have continued smoking after having lost their smell; while others have given it up after having become blind, and when smell persisted. This would appear to prove that the sight of the rising curls of tobacco-smoke enters as much into the enjoyment of a cigar as its flavour.

If we had no olfactory nerves the science and art of perfumery would vanish, Bond-street would be shorn of one of its greatest attractions, and ladies could no longer heighten their charms by the use of delicate scents. Even now the relation between the sense of smell and the tender passion is not quite extinguished; and Hippolyte Cloquet, in his "Osphrésiologie," or science of odours, says: "La saison des fleurs est celle des amours; l'odeur qui s'exhale de leur sein épanoui, en parfumant le zéphyr, fait entrer au fond du cœur un charme irrésistible. Les idées voluptueuses se lient à celles des jardins et des ombrages odorans; et les poètes attribuent avec raison aux parfums la propriété de porter dans l'âme une douce ivresse." This is no doubt the reason why hysteria, which was formerly believed to be a disease of the womb, was of old chiefly treated with strongly smelling substances, such as musk and castoreum; and where these could not be procured, by the emanations from burnt feathers or wool. Such treatment was indeed recommended by the Father of Medicine, who also spoke highly of the effects of sweetly smelling oils introduced into the vagina during hysterical fits.

Another art which would decay if smell were lost is that of horticulture; for roses, jasmine, hyacinths, and many other fragrant flowers, are cultivated much more for the pleasure they afford to the nose than to the eye.

That the first cranial nerve is intended for olfaction, or, more strictly speaking, for conveying odorous impressions to the brain, was first laid down by the learned monk Protospatharius, who wrote, about the year 800, a Greek essay on the parts of the human body. Aristotle has, indeed, credited the nose with being the seat of the sense of smell; but Galen, in his treatise "De Instrumento Odoratûs" stated that the olfactory nerves were simply canals by which vapours arrived in, and humours escaped from, the brain,

and that the sense of smell resided in the anterior cerebral ventricles. He was no doubt led to this conclusion by his dissections of quadrupeds, in which the olfactory lobes contain cavities filled with serum, and communicating with the lateral ventricles. Such cavities exist even in the human fœtus at an early period of its development. Moreover, Galen had observed that smell was bound to inspiration, which seemed to him to show that odours passed bodily into the cerebral substance. Vesalius was the first to dissect the olfactory nerve in the human subject; he described its external and internal white roots as well as the olfactory ganglion, and agreed with Protospatharius as regards its function. Lobstein first noticed the third central grey root, which only comes in view if the nerve is pulled aside.

From that time forward the olfactory nerve was generally admitted to be concerned with smell, but Magendie, to whom experimental physiology owes so much, concluded from his experiments on dogs that smells were perceived by the nasal branches of the fifth pair, and that the first nerve was a structure like the pineal and pituitary glands, the functions of which were as yet problematical. The substances with which Magendie experimented were chiefly ammonia and strong cheese, and as these affect common sensation as much as the special sense of smell, it was justly objected to these experiments that no sufficient distinction had been drawn between ordinary and special sensibility. This view was generally endorsed by physiologists until Claude Bernard in his lectures on the "Physiology and Pathology of the Nervous System" (Paris, 1858) reopened the question, and without actually upholding the theory of his illustrious predecessor, adduced arguments to prove that we were not yet in a position to speak decisively on the relative functions of the first and the fifth nerve. He argued that the analogy with vision, for which there is a special nerve, did not prove anything, as there was a contrary fact concerning taste, the gustatory nerve having been shown to preside over common as well as special sensibility in the two anterior thirds of the tongue.

Bernard supported his argument chiefly with a case of congenital absence of the olfactory nerves, which happened accidentally to come under his notice on the post-mortem table. It was the case of a woman who had died of phthisis in the Hôtel Dieu. On opening the skull it was found that the cribriform plate of the ethmoid bone did not exist, or rather that it had no foramina; the sulcus in which the olfactory nerve usually lies was only slightly indicated, and there was no trace of these nerves anywhere, not even towards their habitual origin. In all other respects the brain and cranial nerves were perfectly normal. On inquiry amongst her friends it turned out that no deficiency of smell had been recognised or suspected in the patient during life. The woman had been known to have a great dislike to tobacco, and when she entered a room the first thing in the morning, where people had been smoking the previous evening, she would hasten to open the windows in order to get rid of the stale smoke. She had also frequently complained of the stench from a privy which was close to her room; she was a good cook, and cunning in the preparation of fine sauces and dainty dishes. Moreover, she had been fond of flowers, which she was in the habit of putting to her nose; she had suffered from profuse night sweats, and complained of their disagreeable odour, and she had refused to take medicines which had a nauseous flavour. With all this she had never had any olfactory nerves! This case is certainly singular, yet we should consider that all the information concerning it was obtained secondhand, and not from the patient herself; and it may be that she had, after all, only perceived such substances as ammonia and sulphuretted hydrogen, which act not only on special but also on common sensibility, and that her habit of putting flowers to the nose was merely a pantomime devoid of special meaning. Indeed, one often notices women, especially those of a lively temperament, carrying flowers to the nose which are devoid of smell, like camellias.

More recently a considerable amount of evidence has been brought forward which indisputably proves that the first cranial nerve really has the special function of smelling, and that the branches of the fifth nerve and the spheno-palatine ganglion, which supply the Schneiderian membrane, are only intended for common sensation and reflex action. In 1868 a case came under my care at the hospital in which there was complete anæsthesia of the fifth pair of cranial nerves, the patient being deprived of common sensation as well as of the senses of temperature, touch, and locality, all over the scalp, face, and in the mucous membranes of the eyes, nose, and mouth, without any other disease whatever. In that case, which I brought at the time before the Royal Medical and Chirurgical Society, and which is published in its Transactions for 1869, the mucous membrane of the nose was perfectly insensible to the touch of blunt or sharp instruments, and no sneezing was brought on by snuff; yet the sense of smell was perfectly normal, the patient having no difficulty whatever in appreciating the different varieties of scents with which I tested him. It was thus rendered evident that no intervention of the trifacial is necessary for the appreciation of odours, which is, on the contrary, the special function of the first pair.

Physiological experiments in animals, which have since been made, have confirmed the view which I then expressed. Thus Schiff noticed that after section of the olfactory nerves or lobes in puppies, these were unable to find the teats of the bitch; they would sip milk from a saucer, but when it was covered with paper they failed to find the milk. Again, if the edge of the containing vessel was besmeared with some foul-smelling substance, which would deter any ordinary dog from touching it, the deolfactorised puppies would drink the milk all the same. Vulpian destroyed the olfactory lobes in bloodhounds, and kept the animals some time without food. They were then found unable to discover meat concealed somewhere in the laboratory. Prévost excised both spheno-palatine ganglia, which Bernard had suspected to be concerned in smelling, yet that sense remained perfect. It was, however, lost when the olfactory nerves were afterwards destroyed in the same animals.

It is a significant fact that chemical, mechanical, and thermic irritation of the olfactory nerves in animals causes neither pain nor movement, nor reflex action of any sort, and this points clearly to the sensorial function of the nerves. Comparative anatomy shows their large development in animals whose smell is notoriously keen.

Does this nerve respond specifically to the application of electricity? This is an interesting question which has engaged the attention of physiologists since the discovery of galvanism towards the end of the last century. It is well known that the optic nerve responds to the continuous voltaic current by the perception of flashes of light, the auditory by peculiar sounds, and the gustatory by a special taste. Any special sensorial response of the olfactory nerve, however, had not been observed until I demonstrated it in the patient to whose case I have just alluded as one of disease of the trigeminal nerve. That such an effect should have escaped the notice of so many previous observers I attribute to the fact that a current of great power is required for making an impression on the first pair; and a strong current affects at the same time the fifth, the optic, the auditory nerves, and the brain itself, so much that a commotion is caused in the latter, which renders it unable to properly differentiate so many powerful simultaneous impressions. The application of a current of thirty-five pairs of plates to the mucous membrane of the nose, which I found necessary to elicit a response of the olfactory nerve in that case, produces in persons who are in their ordinary health extreme pain, dazzling flashes of light, a hissing noise like that of a steam-engine, together with faintness and giddiness. In the patient referred to, however, such a current could be easily borne on account of the anæsthesia which was present; and in him the perception of a *phosphorous smell* occurred so constantly when this proceeding was used, that it was rendered evident to me that the first nerve responds to a sufficiently powerful continuous current by the perception of such a peculiar smell. I shall presently have to refer to a pathological confirmation of this physiological fact.

The peculiar structure of the cavity of the nose is in entire accordance with the theory that there is one nerve for common sensation and another for the special sense of smell. We find there two channels, an upper, anterior, and smaller one, which serves for olfaction, and a lower, posterior, and larger one, solely intended for respiration; and the ordinary communication between these two channels may be cut off by that projection of the mucous membrane which Meyer has called the "agger nasi," and which under the action of different muscles may assume different positions.

The mucous membrane investing these two channels differs in essential particulars. That which covers the lower respiratory channel, and which should strictly be called the Schneiderian membrane, possesses ordinary epithelial cells, and shows no peculiar pigmentation. It does not receive any fibres from the first pair, but only from the

fifth, which impart to it common sensation. The mucous membrane of the olfactory channel, on the other hand, has a peculiar yellow-brownish colour owing to the presence of pigmented cells, which are called sensorial or olfactory cells, and constitute a higher development of epithelial cells. Dr. Wm. Ogle in an able paper on Anosmia, which appeared in the Medical and Chirurgical Transactions for 1870, has justly laid stress on the importance of this pigment, the quantity of which appears to be in direct proportion to the keenness of smell, while its absence seems to coincide with loss of that function. More recent researches by Exner have shown that division of the olfactory nerve in frogs and rabbits causes the development of these pigmented cells to be arrested, so that about two months after the operation only common epithelial cells are to be met with. At the same time the cilia disappear, and the peripheral end of the nerve undergoes fatty degeneration.

In animals whose smell is particularly keen, the pigmented cells are much more abundant than in man, in whom the sense is rudimentary, and children whose smell is obtuse have less pigment than adults. This is the reason why children have no difficulty in taking nauseous medicines, such as castor oil.

No sensorial cells are to be found in the mucous membrane of the accessory cavities of the nose—viz., the antrum and the frontal and sphenoidal sinuses; and this affords *primâ facie* evidence that these cavities do not participate in smelling. Indeed, it is more rational to assume that they serve for lightening the weight of the skull, for heating the inspired air before it reaches the larynx, for giving a peculiar timbre to the voice, which in disease of these parts acquires a nasal resonance, and finally for keeping up a steady supply of mucus which serves to keep the nasal cavity properly moistened.

(To be concluded.)

NOTES ON THE PATHOGENY OF DIABETES.

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(Communicated for the Author by DAVID PAGE, M.D.)

IN the following communication I wish to give a brief account of four cases of this disorder, the history of which appears to me of particular interest, partly by reason of their rarity—these being the only cases I have met with amongst 520 diabetics coming under treatment within the last twelve years—and partly because of their presumable bearing upon the pathogeny of diabetes.

CASE 1.—Mrs. A——, who has suffered for the last three years from diabetes, came under my observation on July 7th, 1873. At this date the sugar present in the urine amounted to 2½ per cent., but after three weeks' treatment it had nearly disappeared.

Early on the morning of the day fixed for her departure from Neuenahr I was hurriedly sent for, when I found her in a drowsy condition, with sunken look, and a pulse of 120. She had been seized during the night with violent colic, quickly followed by the vomiting of green-coloured matters. On being questioned she declared that she was not aware of having eaten or drunk anything which could have brought about this attack. No evacuation of the bowels for two days. Temperature in rectum 37·4° C. (99·3° F.); tongue dry and furred; intense thirst and great weakness. An examination of the abdomen, which was not sensitive on pressure, elicited nothing abnormal. Respiration frequent, between 30 and 40, and deep. The pain, which the patient described as extremely violent and griping, had its seat in the upper part of the abdomen, and was of an intermittent character. She lay, as I have said, in a drowsy state, from which she was aroused by the sudden attacks of vomiting and pain. Although her whole appearance gave me the impression of intoxication, I was unable to find anything in the vomited matters to justify such an assumption. I accordingly confined my treatment to the internal and external application of ice in order to check the sickness. This proved unsuccessful, as also the administration of sedatives, which mitigated only the violence of the pain.

Next morning no change. No abdominal tenderness on pressure; no alteration in form; no dulness; temperature normal; pulse faster, 130; respiration 45, with very deep inspirations. The patient sank rapidly, and died towards noon, the vomiting having ceased about two hours previously. The urine passed an hour before death was found to be free from sugar. An autopsy was not permitted. As I learned afterwards, she had a few days before this eaten very large quantities of sugar and rich pastry.

CASE 2.—On the morning of the 15th July, 1875, I was called to M. L——, a girl of thirteen years of age. The child had been suffering from diabetes for some time, and had been, the parents informed me, about three weeks at Neuenahr. There had been some improvement, and the amount of sugar in the urine had become reduced. According to their statement she was a somewhat spoilt child, and had, especially of late, been guilty of frequent errors of diet in eating fruit and sweetmeats. This had not, however, had any bad effect upon her general health, and, until the previous day, she had been well and lively. She all at once complained of acute colicky pains, became sick and vomited frequently. There had been no vomiting for the last two hours, but the pain continued. There had been no motion of the bowels for three days. Vomited matters described to have been of a green colour. Urine passed in fair quantity, clear and free from sugar. This child, who was also lying in a drowsy condition, threw herself about from time to time with loud screams and groaning. Pulse 120 to 125; breathing hurried but not superficial, about fifty respirations a minute. Tongue dry, but not furred; intense thirst; strong fetor from the mouth; great weakness. The abdomen was a little contracted, and rather tender upon pressure. The periodic attacks of pain were, as in the previous case, localised in the upper part of the abdomen. As the idea occurred to me that the child may have partaken of something noxious, I requested the parents to preserve any matters which might be vomited, and prescribed cold enemata and castor oil. I saw the child again in the afternoon; her condition was precisely the same, but no vomiting. No motion of the bowels, in spite of repeated enemata and two doses of castor oil. At seven o'clock I was again summoned, when I found the patient screaming and in the most violent clonic and tonic spasms; eyes wide open and fixed, and the pupils strongly contracted and with very slight reaction. The answers of the child were indistinct an unconnected. Half an hour afterwards tracheal râles suddenly occurred and she died. This altogether peculiar and quickly fatal attack naturally aroused suspicions of poisoning, especially as the child had just before been in the hands of a quack doctor. It transpired, however, that such harmless remedies as peppermint only had been administered, and, moreover, the results of the judicial post-mortem made at Frankfort, whither the body had been meanwhile conveyed, gave no support to the suspicion of poisoning.

CASE 3.—M. P——, a healthy child of seven years of age, came under my treatment on the 15th August, 1879. Her mother told me that quite a year ago the child, who was exceedingly addicted to sweet things, had had repeated attacks of gastric catarrh. She had become much reduced, and latterly suffered much from thirst; these circumstances led to the detection of diabetes. The attacks of acute gastric catarrh still continued to recur from time to time, and the child then felt herself better only after a thorough evacuation of the bowels, on which account her mother was accustomed to give her a dose of castor oil whenever she began to be out of sorts. The urine contained only 1 per cent. of sugar and the subjective state of health was most satisfactory.

After she had been about a week at Neuenahr, during which time she had been placed upon not too strict a dietary, I was sent for one morning as another of her attacks of gastric catarrh had come on. I found in her case almost precisely the same symptoms as I have already described: great drowsiness, prostration, vomiting of green matters, very violent paroxysms of pain in the upper part of the abdomen, exactly in the region complained of by the other patients; abdomen not tender on pressure, but somewhat tumid. Pulse 120; respiration between 30 and 40; inspiration deep; temperature rather elevated, 38·5° C. (101·3° F.). Tongue dry and coated; strong fetor from the mouth. Urine free from sugar; no sugar or poisonous matters in the vomit. Constipation for last two days. A tablespoonful of castor oil was at once administered, and as this had not acted another in a couple of hours afterwards. An hour later, with remission of all symptoms, several very copious, extremely offensive, and almost black evacuations took

place, which were repeated several times during the night and following day. In two days the child was again perfectly well. Curiously enough, eight days elapsed before traces of sugar again showed their presence in the urine.

CASE 4.—Herr M——, twenty-eight years old, suffered from diabetes accompanied by considerable albuminuria (0·3 per cent.), and since the sugar had quickly disappeared under anti-diabetic treatment, I felt it advisable on account of the high percentage of albumen present to enjoin on him a less rigid dietary, and especially to allow him milk. The effect of this change was to reduce the albumen within three weeks to less than 0·1 per cent.; sugar, on the other hand, reappearing to the amount of 0·5 to 1·0 per cent. On the 26th July, 1880, Herr M—— was suddenly attacked with all those symptoms which have been already described. Several doses of castor oil brought about the same evacuations as in the preceding case, followed likewise in his case by complete recovery. No sugar and very little albumen were present in the urine.

Putting together, now, the symptoms common to these four cases, we have in the first place violent paroxysmal pain localised in the upper part of the abdomen; frequent vomiting of green-coloured matters; exceedingly obstinate constipation; head affection; somnolence (only in the second case were the symptoms of depression succeeded by others indicative of cerebral irritation); great prostration; small frequent pulse; very rapid breathing with remarkably deep inspiration, dry tongue, intense thirst, and not essentially elevated temperature. In all sugar was notably absent from the urine, notwithstanding the fact that sugar-containing food had been taken beforehand. There was also neither increased tenderness of the abdomen to pressure, nor significant distension or dulness. The hepatic dulness had not disappeared.

With regard to these general symptoms, acute peritonitis may be put out of the question; and so also any renal affection, for in three of the patients the urine afforded no evidence of anything of the kind, whilst in the fourth case the albumen had actually diminished in quantity. These symptoms, too, would also tend to exclude the possibility of a gastric or intestinal catarrh, such as one is accustomed to see following upon the immoderate ingestion of indigestible food, but give support to the view that only an extremely poisonous substance or material, affecting chiefly the intestinal tract, could have been competent for their production. Inasmuch as no poisonous substance had been actually taken by any one of the patients, such could have only been formed in the intestine itself; moreover, in both of the last two cases recovery and improvement at once followed upon abundant evacuations of extremely offensive and almost black quantities of excremental matters, whilst in the case of the other two which ended fatally, an ordinary movement of the bowels proved impossible.

In similar cases, therefore, I would strongly advice a full dose of castor oil not to be delayed, even should no previous constipation have existed, and that every effort be made to empty the bowels as thoroughly and as quickly as possible. Now, I believe that the poison whose source must be referred to the intestine stands in some kind of relation to the diabetes—i.e., the sugar; for whilst all four patients were diabetics, yet during the attack the sugar entirely disappeared from the urine, and this in spite of well authenticated errors of diet having in each instance been committed. It is not too far-fetched to assume that the ingested sugar had undergone transformation in the intestine, and produced the poison. If such be the case, then, my views with regard to the pathogenesis of diabetes have anew received essential confirmation. Seven years ago I published the history of a case of diabetes in a child of four years of age, whose mother was also a diabetic.[1] At the desire of the latter I had for some time made continued examinations of the urine, always finding it free from sugar. The child was suddenly taken ill, with symptoms of gastric fever. The urine, which a few days before had been free from sugar, was now found to contain nearly 6 per cent.; this amount, however, completely disappearing under the anti-diabetic diet in the course of a fortnight. The child quickly recovered, and is now living.

This case, as also the statements of various diabetic patients who had suffered from attacks of gastric fever, and in whom only subsequently the symptoms of diabetes developed themselves, suggested to my mind the possibility of a connexion existing between the two disorders and of the seat of diabetes in many cases being found in the upper part of the alimentary tract. I asked myself the question what, under normal circumstances, becomes of the sugar often ingested in large quantity, seeing that very little of it is found again in the chyle or the blood of the portal vein? It must be transformed somewhere, and may not this transformation be effected in the duodenum by the agency of the alkaline pancreatic juice? If, then, the digestion of sugar does take place in this way, and it should happen that the pancreatic secretion was insufficient from disease of the pancreas itself, from the disturbing and inhibitory influence upon the nerves controlling the secreting function of pathological events, or from the constant ingestion of sugar in too large amount, a greater or less quantity of sugar which has escaped transformation must accumulate in the intestine.

As it has been conclusively shown that the intestinal mucous surfaces absorb sugar, mellituria quickly following upon the injection of sugar by the rectum, the absorption of sugar by the small intestine and rest of the tract in much larger proportion and far more easily must ensue. But besides being absorbed, the sugar thus accumulated in the bowel may, and this is more to the purpose, easily undergo fermentation and decomposition. To this fermentation and decomposition of the sugar are due the gastric fever of the child, those gastric symptoms previously in question, the extremely profuse diarrhœas so frequent in diabetics, and lastly, the four attacks of illness above described. The only difference in regard to these last is that the change had proceeded so far as to develop some intensely poisonous product.

I have already mentioned the peculiar incident of the disappearance of the sugar entirely from the urine of these four patients, and I may now state, in addition, that after the above described attacks of diarrhœa in diabetics I have always found upon examination of the urine a marked diminution, or even total disappearance, of the sugar. So far as I am aware, a chemical examination of the diarrhœtic discharges has not hitherto been made whereby one might be enabled to decide whether that fact is to be ascribed to the expulsion of the sugar with the other contents of the intestine, or whether these discharges contain only the products of its decomposition. Be this as it may, the fact itself remains certain, and speaks in favour of the views I have adduced, in further support of which is the circumstance that there is no better treatment for diabetes than a diet practically free from sugar and amylaceous ingredients; for here the amount and quality of the pancreatic juice are sufficient to meet the trifling quantity of sugar present. The practitioner who, like myself, is in the position of having a large number of diabetics under treatment at the same time (in the summer of last year my *clientèle* included 110 such patients), may easily observe how exceedingly diversified is the immunity towards sugar in the case of individual patients—in other words, how far the quantity and quality of the pancreatic juice suffices for the satisfactory transformation of the sugar in different cases. Thus one patient will tolerate 20 grms. of brown bread (two-thirds of an ounce), but not even 10 grms. of white bread (a third of an ounce); another can eat both with impunity, and the same quantities of lentils and peas besides; a third even rice and potatoes in even larger amount, while another cannot take any of these whatsoever—indeed, not even some starchy gluten bread or leafy vegetables which have not been deprived of the stalks with every possible care. I may remark that I always seek to prescribe for each patient a special diet suited to the individual.

The existence of cases of diabetes where under a so-called purely animal diet the sugar is averred to be formed from the albuminoids, I should be inclined to call in question; for how is it possible to prepare a dietary which shall be absolutely free from sugar? Do not flesh and the yelk of egg, wine, even the most acid, all contain sugar? and with regard to vegetables, do not the stalks and ribs of the salad and leafy herbs also contain some sugar? In short, with the exception of cheese and sour milk, there is scarcely anything to be found which does not in some proportion or another number sugar of some kind amongst its constituents. If, in spite of a diet of flesh, fish, eggs, herbaceous vegetables, and red wine the sugar has not disappeared, then depend upon it that either the pancreatic juice is incompetent to accomplish the transformation of these small quantities of sugar, or that the patient has not strictly adhered to his diet; and the latter will prove to be most frequently the case.

How often I have had occasion in my practice to observe

[1] Berliner klinische Wochenschrift, 1873, No. 19.

that patients, in spite of the most solemn promises, have clandestinely eaten forbidden articles of diet, even of saccharine articles and sugar itself, to large excess! How many cases can I recall in which the sugar in the urine, after having quickly diminished in amount to a small percentage, all at once began to increase rather than to decline! And how many patients, apparently sensible and intelligent, solemnly assured me that they had eaten nothing save what had been allowed, and then, by chance, it came to my knowledge that this one had eaten a couple of pounds of cherries, that one half a pudding, and so on, persistently committing altogether the most grave errors of diet! Once a diabetic patient assured me on his word of honour that he had most conscientiously adhered to the diet which I had prescribed, and his wife complained to me with tears that he had threatened her with violence if she did not supply him with plenty of bread and sugar! It is, indeed, quite a peculiarity what an often unconquerable desire diabetic patients have for sugar and saccharine articles of food.

I need hardly say that my views apply only to true diabetes—that disease in which the ingested sugar, instead of undergoing the normal transformation, passes into the blood and fluids of the body. To those merely casual attacks of mellituria which owe their origin to the most diverse conditions no reference is necessary.

San Remo.

CASE OF

ACUTE PHTHISIS TREATED BY THE CONTINUOUS TOPICAL MEDICATION OF THE LUNGS.

BY G. HUNTER MACKENZIE, M.D.,
LECTURER ON LARYNGOLOGY, PHYSICIAN FOR THROAT DISEASES TO THE WESTERN DISPENSARY, EDINBURGH.

IN a former communication (THE LANCET, Nov. 27th, 1880) I directed attention to the system of continuous topical medication of the lungs in phthisis, and showed how it might be successfully carried out by means of a respirator[1] specially constructed for the purpose. I now wish to record in detail a case of acute phthisis which has been treated by this method with satisfactory results.

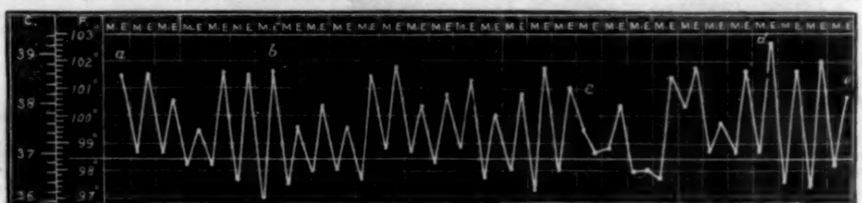
A. B——, male, aged eighteen, a lithographer in Edinburgh, consulted me in July, 1879, complaining of general weakness, cough, and emaciation. Two brothers had died of phthisis, and there was a history of the same disease in his maternal relations. The patient had not suffered from any previous complaint. He had not lately had a cold, and he could assign no particular cause for his ill health. On examination, the pulse was quick and small (110); temperature 100·5°; respiration slightly hurried. The mouth and tongue were rather dry, the latter slightly furred. Beyond a slight roughening of the respiratory sounds, and prolonged expiration, there was nothing to be detected in the lungs. He was ordered cod-liver oil, with hypophosphites, abundance of milk, and residence in the country, for which he soon left. In October I was called to see him, and during that and the succeeding month he became rapidly worse. The fever increased, an evening temperature of 103° being recorded, with a correspondingly quick pulse, shallow and hurried respiration, lips coated with sordes, thirst, and lividity of the extremities. The lungs now gave undoubted signs of disease. There was marked dulness over the upper third of the left lung anteriorly, with copious fine crepitation, racking cough, occasional bloody sputum, severe night sweats, and loss of hair. The general weakness increased to such an extent that the patient latterly could scarcely leave his bed without assistance. The treatment pursued in the first instance embraced the continued administration of cod-liver oil and hypophosphites, quinine and digitalis, maltine, &c., with the usual regulations as to diet and hygiene. At this time I had not the same facilities for making continuous observations as latterly, but there was no disputing the fact that the disease, in spite of the above and similar treatment, continued to make rapid and alarming headway. Under these circumstances, on November, 26th 1879, I commenced the system of topical medication. Marked improvement of the various symptoms soon followed. The subjoined charts indicate the thermometric range (the most precise gauge of the progress of phthisis) from January 27th to July 12th, 1880, with one or two intervals, when the observations, from some cause or other, were not made or recorded. During the period not embraced in the charts—Nov. 26th, 1879, to Jan. 27th, 1880—the patient also steadily, though slowly, improved. (See Chart I.)

The general results of the treatment so far were: (1) slight fall of temperature; (2) great diminution of the cough, with complete cessation of the muco-purulent sputum; (3) marked improvement in the appetite and general strength; (4) gradual abolition of the night sweats; (5) improvement in the

CHARTS SHOWING THE MORNING AND EVENING TEMPERATURE IN A CASE OF ACUTE TUBERCULAR PHTHISIS.

CHART I.—*Using Respirator.*

(The use of the respirator was commenced on November 26th, 1879, but the under-noted observations only date from January 27th, 1880.)



a. Jan. 27th, 1880.—Using respirator charged with pure creasote.
b. Feb. 2nd.—Using respirator charged with three parts of carbolic acid to one of creasote.
c. Feb. 15th.—Phenol in urine (Falconer King).
d. Feb. 22nd.—Commenced creasote pill, containing one drop, after dinner.
e. Feb. 25th.—Discontinued use of respirator and creasote pill. No albumen in urine.

physical condition of the lungs. To assist in determining the relationship between the particular method of treatment employed and the improvement in the patient's condition, I now discontinued the creasote and carbolic inhalations, with the following results. (See Chart II.)

Without the use of the respirator the patient decidedly relapsed. As indicated on Chart II., the temperature, as a rule, was higher, the cough and sputum returned, there was a renewed tendency to nocturnal sweating, and the patient expressed himself as not feeling nearly so well as when wearing the respirator. At his own desire he resumed the inhalations, and again most marked improvement followed, as indicated on Chart III.

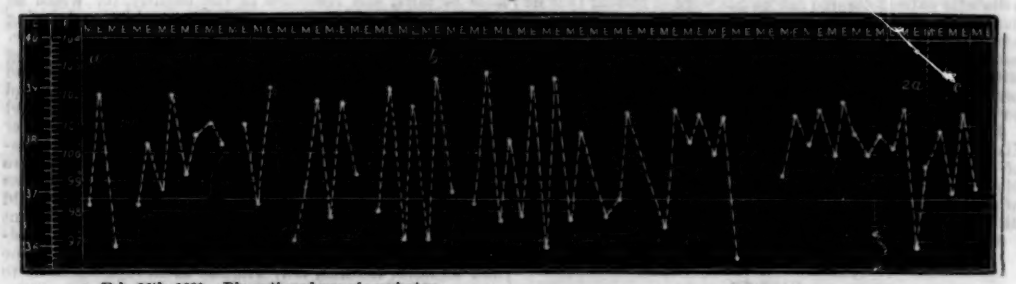
The further history of this case is of interest. During the late severe winter the patient went about rather freely, and, contrary to my advice, abandoned altogether the creasote inhalations. The result was that about the beginning of the year he had a relapse, with a return of the cough, night sweats, and other symptoms, but not to the same extent as formerly. He now, of his own accord, resumed the use of the respirator, and precisely the same results as on the two former occasions followed. When I had an opportunity of examining him, on March 8th last, the evening temperature was 98·9°; there was no cough, expectoration, or night sweating; the appetite was good, and the patient felt

[1] The respirator as used by me is made by Mr. Gardner, South Bridge, Edinburgh.

"very well." There was a scarcely appreciable dulness at the left apex anteriorly, with prolonged expiration at both apices, but no moist sounds were audible. He had slightly increased in weight. The patient was not by any means "the picture of perfect health," but he had a very different appearance from what he presented before commencing the use of the respirator.

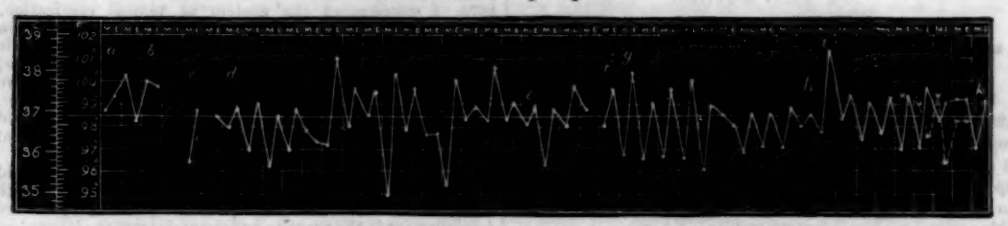
Remarks.—There can be no doubt whatever that the success in this case was owing to the particular method of treatment employed—viz., causing the patient to respire as continuously as possible an "antiseptic" atmosphere. The result obtained would appear to bear out the experiments of Schüller of Greifswald, who found that animals rendered artificially tuberculous were cured by being made to inhale creasote water *for lengthened periods*. (The italics are mine.) Intermittent spraying or inhaling does not produce the same result. In order to ensure success the application to the lungs must be made *continuously*. For this purpose I have used various volatile antiseptics, such as creasote, carbolic acid, and thymol. The

CHART II.—*Respirator not used.*



a. Feb. 20th, 1880.—Discontinued use of respirator.
b. March 11th.—Cough increased. Appetite impaired. Night sweats not returned. Occasionally feels very hot.
c. April 2nd.—General condition deteriorating. Feels himself not so well as formerly. Night sweats occasionally present.

CHART III.—*Using Respirator.*



a. April 24th, 1880.—Commenced use of respirator charged with pure creasote, fifteen days previously.
b. April 26th.—Commenced to take half an ounce of cod-liver oil night and morning.
c. June 1st.—Cough and night sweats absent. Hair not coming out. Appetite very good. Looking much better.
d. June 3rd.—No creasote or albumen in urine (Falconer King). All subjective febrile symptoms disappeared. Slight diarrhœa.
e. June 19th.—Took walk of four miles without difficulty.
f. June 23rd.—Commenced maltine, two drachms thrice daily.
g. June 24th.—No albumen or phenol in urine (Falconer King).
h. July 3rd.—Dropped maltine.
i. July 4th.—No apparent cause for increase in temperature.
k. July 12th.—Discontinued use of respirator. Patient feels quite well.
* Indicates own temperature taken at same time, and under similar conditions as patient.
Aug. 13th.—Patient went to the Highlands, apparently well.
Sept. 1st.—Temperature 99° (evening).
March 8th, 1881.—Temperature 98·9° (evening).

latter I have now discarded as being too irritating and inefficient. Carbolic acid seems to be absorbed, for it has been detected freely in the urine, in this and other cases where it was inhaled, by my friend and colleague Mr. Falconer King, lecturer on chemistry. Mr. King has been unable to find any trace of creasote in the urinary excretion after the use of creasote for several consecutive days. As absorption of the particular drug employed is not necessary, and therefore not to be desired, I now use creasote only, either pure or dissolved in one to three parts of rectified spirit. Whether the success so far attained is due to the antidotal action of creasote and carbolic acid on a specific tubercular neoplasm, or to their action as preventives of septic poisoning from the local centres in the lungs, it is certain that their continuous, steady use in the manner just described has a decidedly curative action in acute phthisis, and is therefore worthy of an extended trial.

Edinburgh.

RECOVERY FROM APPARENT DEATH UNDER CHLOROFORM.

BY WILLIAM KORTRIGHT BROCK, M.R.C.S.,
LATE MEDICAL OFFICER TO THE FULHAM UNION INFIRMARY.

THE subject of death from chloroform having lately been made prominent in the pages of THE LANCET, the following record will, I think, be read with more than usual interest at present.

J. M——, aged twenty-four, an inmate of the above infirmary, about three years ago received an injury to the spine by falling from a scaffold thirty-five feet high, his back coming across a pole, whence he slipped on to a heap of bricks. The exact nature of the lesion received did not appear. He was taken, according to his own statement, to St. George's Hospital, whence, after remaining there seven months, he was discharged as incurable, and received into the Fulham Union, having lost all sensation and voluntary motion below the waist.

The details of this case will be reproduced more fully on a future occasion as one of a series illustrative of the effects of actual cautery in treating certain forms of paralysis. Suffice it therefore now to say that the patient came under my notice in February, 1879, when I took office at the infirmary, and that at first I accepted the verdict passed on him at St. George's. But reading a paper by the late Surgeon Major Porter on the use of actual cautery in a somewhat

similar case, I was induced to carefully examine him, with the view of determining whether it were worth while to attempt the like treatment. He proved to be an exceedingly intelligent, happy-minded fellow, and urged that even the remotest chance of improving him should not be left untried.

The following was his description at that period:—A small, spare, fair, boyish-looking man lying on his back, with a sheet tied tightly across his knees to prevent them flying up to his chin, and pads between the knees and ankles, which were ulcerated from pressure; his fixed condition being one of violent permanent spasm of the flexor and adductor muscles of the lower limbs, with paralysis of the bladder, and total loss of feeling below the level of a bony growth, as large as an egg, engaging the fifth and sixth dorsal vertebræ. There was no angular curvature or chest deformity. His general health was excellent, appetite good, lungs and heart sound.

Yielding to his importunity, though with but faint hope of benefiting him, chloroform was administered, and two eschars made, an inch wide and six inches long, on each side of the spinal swelling, the instrument used being an ordinary iron for spreading plaster, heated; these were connected by arrow-headed markings. The issues were kept open about three weeks with poultice and savine ointment, after which they healed up, apparently without having produced appreciable effect, though J. M——, who used to test his own sensibility with a needle, declared he could "feel lower down than before," and insisted on the operation being repeated. This was done with such palpable improvement that it was re-performed four times at various intervals. At length he could feel the prick of a needle keenly at the hips, and more slightly at the legs. Erections and voluntary micturition were re-established, and he could extend, flex, or otherwise move his legs at will, though still with great effort. In each operation I had hitherto had the aid of two medical friends, Mr. Hildyard Rogers of Shepherd's Bush, and Dr. McSwiuney of Brook Green. In June last, in compliance with his urgent entreaty, I made arrangements for repeating the operation for the fifth time, but at the last moment both my friends were detained elsewhere. It was, therefore, postponed till the following day, when again I found myself alone. As the man had twice been kept without his dinner, and was greatly disappointed, at his particular request I consented to proceed single-handed; for we had neither assistant, dispenser, operation room, nor any of the appliances of a well-ordered establishment afforded by the guardians (even midwifery instruments being refused me), though having from 350 to 400 patients on the average. Yet, under these disadvantages, operations were not of rare occurrence; within a short period the closing a vesico-vaginal fistula, amputation of the leg, excision of the breast, removal of half of the inferior maxilla and other matters having taken place successfully.

In this case I had no misgivings; the man had taken chloroform already four times, requiring an unusually large quantity to produce anæsthesia, and recovering from its influence very rapidly. Besides, my experiences of the exhibition of the drug could be counted by the thousands, extending back to the days of the Crimea, and hitherto without a shadow of mishap. This time he took the anæsthetic better than ever, less than two and a half drachms proving sufficient. The same procedure as before was gone through. Rolled over on to his stomach, with a pillow beneath it to throw up the back, the head nurse, a most careful, trustworthy person, took charge of the face to keep the mouth disengaged from the bolster, while I applied the iron, assisted by two or three other patients. A piece of oiled lint was then laid on the spot, and J. M—— placed on his back, his pulse and breathing being then both good. I turned from the bed and walked to the stove, a distance of about fifteen feet, to put down the iron, when a cry from the nurse brought me quickly back. Respiration and heart action had ceased suddenly and completely. Having first ascertained that the mouth and rima glottidis were free from mucus, the head was allowed to hang down over the edge of the bed for a few seconds; then lifting the body on to the floor, a needle and thread snatched from a bystander were passed through the tongue, which the nurse held forward, while artificial respiration was vigorously carried on by compressing the chest walls; at the same time cold water was plentifully thrown on the body and ammonia applied to the nostrils. At the end of six minutes, when all seemed unavailing, I stopped for a moment to look at the patient. There was a something in his blue appearance that impressed me with the idea that actual death had not yet occurred, and putting my ear to the heart, I fancied a sound like a distant thrill or murmur could be detected. Artificial respiration was resumed, and in a few seconds more the heart's action was very distinct, but there was no attempt at breathing. Hard slaps, cold water dashed on face and chest, blowing violently down the fauces, were all tried in vain. It was singular to note the apparently dead body show its perception of injury by slightly moving the hand in the direction of the part struck. After the lapse of eight minutes a long and deep inspiration took place, then at an interval of eight or ten seconds another, and then others more frequently.

The galvanic battery having refused to act the day before, it was presumed to be out of order, and had not been brought into the ward; but a thoughtful patient, ignorant of this, had fetched it, and having by this time fixed the wires, put one pole into my hand, which I placed on the epigastrium, directing him to apply the other to the nape of the neck. This he did so rapidly, before I had time to alter the regulator, that the whole current from fifty cells was transmitted, the machine happening to resume its proper action. J. M—— sprang up into a semi-sitting posture, and exclaimed, "Oh, dear! what are you doing of?" He was got back into bed just as the Local Government Board inspector, who was making his official visit, entered the ward. The time that elapsed from the moment of apparent death to his speaking was just ten minutes. Soon after the above narrated occurrence, I resigned the post of medical officer to the infirmary, and consequently lost sight of J. M——, but have heard that he has since gone out in a wheel-chair, sitting upright without difficulty. I believe a pea issue, steadily kept up for a period of two months, would have perfected his recovery, or at least enabled him to walk.

Clifton.

NOTE ON ABSENCE OF BEER IN AN ASYLUM DIETARY.

BY J. A. CAMPBELL, M.D., F.R.S.E.,
MEDICAL SUPERINTENDENT, GARLANDS ASYLUM, CARLISLE.

THE subject of the use of beer in the dietaries of public institutions, for patients, attendants, nurses, and servants, has for the last few years much exercised the minds both of the lay rulers of such institutions and of the medical heads, and a diversity of opinion still exists. The use of stimulants in sickness is also much discussed, and affords considerable scope for variety of opinion and practice.

The asylum which I at present superintend was at one time, I believe, the only English asylum in which beer did not form an article of ordinary diet for patients, attendants, or resident medical officers, and as the asylum has now been in existence since January, 1862, its general results may be fairly taken for purposes of comparison. The Committee of Visitors, when the asylum was opened, were of opinion that in many respects it was highly advisable that the diet-scale, and also the hours for meals, should accord to a certain extent with what was in force in the district from which the patients were drawn, and hitherto they, or their successors in office, have seen no reason to alter the opinion which was wisely come to at a period when, in the belief of many, it was wrong. Beer does not form a usual part of the diet of the working-class in these two counties, and their hours for meals would by many be thought barbarously early.

I have for several years had so many inquiries into the matter of diet, and the absence of beer in it, and as to the effects of this want of beer in reducing the health, in evilly influencing recovery, &c.—some of these inquiries have been so full and particular as to percentages of recoveries and deaths, the cost of stimulants as medicinal treatment, and the cost of medicines,—that I have drawn up the following tables, which show the main points that can be of any value to other institutions; while I avoid all comparison which might be invidious, and which, if required, may easily be made by those who wish to enter on the subject.

As during the first year of the existence of this asylum the reception of chronic patients much influenced the results, and also as there was no report printed, I simply give the results contained in the ten yearly reports drawn up and

issued by my predecessor, Dr. Clouston, and those from my own reports for the last eight years. I give in a tabular form the percentage of recoveries on admission, the percentage of deaths on the average numbers resident, the cost of stimulants (used medicinally) per head, and also the cost for medicine during these two periods.

	Years.	Percentage of Recoveries on Admissions.			Percentage of Deaths on Average Nos. Resident.			Wine, Spirits, and Porter.	Surgery and Dispensary.
	From Jan. 1st to Dec. 3rd.	Males.	Females.	Total.	Males.	Females.	Total.	s. d. 16th	s. d. 16th
1st Period of 10 Years.	1863	30·6	18·4	25·0	4·3	6·4	5·2	0 1 12	0 0 7
	1864	30·7	38·0	34·0	12·0	12·0	12·0	0 1 14	0 0 13
	1865	30·0	44·0	38·6	3·8	9·4	6·2	0 1 14	0 0 13
	1866	15·0	38 0	25·7	5·2	2·8	4·0	0 1 13	0 0 10
	1867	27·1	34·2	29·9	12·8	6·9	10·3	0 2 10	0 1 1
	1868	36·7	38·3	37·5	7·4	7·7	7·6	0 2 12	0 1 8
	1869	41·2	37·5	39·1	8·9	6·3	7·7	0 1 14	0 1 2
	1870	47·9	44·0	46·2	5·0	6·5	5·7	0 2 7	0 1 0
	1871	43·8	56·0	48·5	11·0	8·6	9·9	0 2 9	0 1 9
	1872	51·1	48·0	49·5	8·0	5·8	7·0	0 2 10	0 1 3

The percentage of recoveries for this period averaged 39; the percentage of deaths on the average numbers resident was 7·6. During this period one pint of milk was given to the men and three-quarters of a pint to the women for six days of the week at dinner. I had the amount of milk reduced to half a pint for each sex, and only gave it three days in the week at dinner, as I thought it did not suit the dinners with fat meat or warm gravy, but the dietary has remained unchanged as regards the amount of butcher-meat.

	Years.	Percentage of Recoveries on Admissions.			Percentage of Deaths on Average Nos. Resident.			Wine, Spirits, and Porter.	Surgery and Dispensary.
	From Jan. 1st to Dec. 31st.	Males.	Females.	Total.	Males.	Females.	Total.	s. d. 16th	s. d. 16th
2nd Period of 8 Years.	1873	37·3	48·3	43·2	5·3	6·2	5·7	0 2 5	0 1 4
	1874	40·3	54·1	46·6	11·5	7·7	9·8	0 3 7	0 1 9
	1875	38·1	43·1	40·3	6·9	6·2	6·6	0 2 12	0 1 0
	1876	43·3	45·0	44·2	15·5	5·9	10·9	0 1 15	0 1 4
	1877	49·0	51·0	50·0	7·7	4·2	6·0	0 1 14	0 1 2
	1878	59·5	59·7	59·5	7·2	8·6	7·8	0 1 6	0 0 14
	1879	35·4	64·0	51·7	8·2	5·5	7·1	0 1 4	0 1 0
	1880	30·4	50·0	39·5	9·3	9·3	9·5	0 1 3	0 1 3

The yearly recovery rate during the eight years averages 47 per cent.; the average percentage of deaths on the numbers resident is 7·9. As the general health has been good, and as in the vast majority of cases the patients admitted have been found to gain in weight after admission (careful weight records being kept), I think the ·3 per cent. of rise in mortality may easily have been caused by the action of the Government grant of 4*s.* per week, for lately we certainly have had more old cases sent in than used to be sent some years ago.

I believe I am correct in saying that in most if not all of the Scottish public asylums no other beverage than cold water is given at dinner. I am at present considering the question of doing away with the small quantity of milk which is given here on three days in the week. The attendants and officials have seemed to keep in good and robust health with water as their beverage.

Carlisle.

BELFAST HOSPITAL FOR SICK CHILDREN.—The gold medal offered annually for competition to the students attending the hospital clinique has lately been awarded to Mr. Thomas Sinclair for distinguished answering in an examination on the diseases of infancy and childhood.

NOTES OF A

CASE OF EPILEPTOID HYSTERIA WITH CATALEPTIC SYMPTOMS.[1]

BY J. Y. TOTHERICK, M.D. ST. AND., M.R.C.P. EDIN.,
PHYSICIAN TO THE WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.

ON July 2nd, 1880, Mary M—— came to the out-patient department of our hospital complaining of "fits," great difficulty in walking, choking sensations, and an enormously distended abdomen. I prescribed bromide of potassium and valerian, with some aperient. She reappeared on the 9th with every symptom much aggravated, being unable to stand, her limbs rigidly extended, the "globus" greatly alarming her, and the abdomen even more distended. In addition I found that her lower limbs and abdomen were quite anæsthetic. She was admitted as an in-patient, and the following notes were taken by our house-physician, Dr. Mortimer.

The patient is a stout, well-built, well-nourished girl, aged nineteen, with placid composed expression, smooth, fair complexion, fair hair, pale-blue eyes, long lashes, and well-cut features. Her family history is remarkably good. She states that since the appearance of the catamenia (which have never been regular), three years ago, she has never been healthy, and during the last three years she has had "fits," slight at first, but during the last twelve months of a violent character and frequent (as many often as five or six a day). During this period she has been under several doctors "for a bloated swelling in the bowels," one of them telling her she had a "tumour." She has been very hard-worked as a general servant, acting as nurse to her mistress, who died; then her master falling ill she nursed him also, apparently with much devotion. She felt frequently giddy, and had violent fits, occasionally lasting two or three hours, and for a short time after each lost the use of her arms, but never of her legs or body, until a month ago, when stiffness came on in the legs, with total loss of sensation.

On admission the patient's condition was as follows:—

Nervous system: Mental faculties acute; answers questions rapidly, intelligently, and with goodwill; much tendency to sleep; complains of giddiness.—Cranial nerves normal, except very marked loss of sensation in all the branches of the fifth pair; conjunctivæ can be pricked without causing a wink.—Spinal cord and nerves: No spontaneous pain in back, but tenderness over third cervical spine on pressure, and also in mid-dorsal and sacral regions. Complete loss of sensation to pain over whole surface—limbs, trunk, head, and neck. Pins can be inserted deeply into the muscles on either side without producing the slightest pain or reflex action, but tactile sensation seems normal in fingers.—Motor powers: Normal in arms; complete loss of voluntary power in both legs, which are kept in a state of rigid extension, even to the toe ends; no tremors; no spasm. Reflexes—plantar, patellar, abdominal, and epigastric—absent. Bladder centres apparently normal.—Electrical reactions: Sensation to faradaic current entirely lost in arms and legs; muscular irritability to same current much diminished. Galvanic current not used, because during the use of the faradaic current the patient appeared to pass into a semi-cataleptic state; heavy, drowsy, sighing; with limbs firmly fixed, and maintained in whatever position they were placed. There was for a short time complete loss of consciousness. There was no acceleration of pulse during observation. Chloroform being administered to complete anæsthesia, the immense abdominal distension entirely disappeared, as also did the rigidity of the legs. On recovering from the anæsthetic, but whilst still deeply under its influence, the plantar reflex reappeared, and the conjunctivæ also seemed more sensitive. The patient, however, very speedily relapsed, even while still under the influence of the anæsthetic. Metallo-therapeutic tests—viz., gold and silver coins—were applied alternately to both legs without apparently the slightest result.—Organs of circulation: Pulse 80, full, firm, and regular; nothing else noteworthy. Organs of respiration normal. Organs of abdominal and digestive functions also normal. Slight polyuria and albuminuria; no dysuria; deep pressure over

[1] Read at the Wolverhampton District Medical Society on Tuesday, Dec. 7th, 1880.

both ovarian regions produced no result. These investigations occupied a period of three days.

July 13th.—The patient *in statu quo*. She had a slight fit of an hysterical character on the first night. Her bowels had been well relieved by pills of aloes and iron. As she lay on a protected bed, her legs were exposed from the knee, and a drop of cold water was allowed to fall on to each at the rate of about eight per minute from an apparatus arranged at a height of about six feet from the bed, for twelve hours.

14th.—The dropping water has caused "a glowing feeling" in the back and arms, and tingling in the spine. She slept well after it was discontinued, and the cutaneous sensation is much improved this morning to level of knees, but still there is some slight general anæsthesia. The patient can rise in bed with more facility, and some slight voluntary motion was observed in the left leg. Water-dropping resumed at 12.30.

15th.—There is very marked increase both in faradaic sensibility and irritability this morning; in the arms it is almost normal, most deficient below knees.

16th.—Marked improvement of voluntary motion in left leg; ankle can be flexed and extended to a moderate extent. Sensation completely returned; slight increase in right leg over upper third. Spasmodic twitchings of muscles of right thigh. Gold test again tried with no effect. Water-dropping resumed on right leg. Blisters, which had been applied to tender points in spine yesterday, had risen well.

17th.—The patient could walk a few steps this morning after some "encouragement"; water applied again to both feet.

19th.—The patient walks well to-day; the phantom tumour, which had almost disappeared, has slightly returned.

20th.—The phantom tumour much more marked, with some abdominal pain, apparently muscular. Water to be dropped on to both recti abdominis for twelve hours.

24th.—No improvement; and on examination sensation—tactile and to pain—quite absent over parts supplied by dorsal nerves from about the sixth to the eleventh.

August 1st.—The patient has been walking in the grounds since last note, and appears quite well, except for the persistence of the phantom tumour and the anæsthesia. An ice-bag was applied to abdomen, but with no effect. Yesterday two flat corks, two inches and a half in diameter, were pierced with numerous pins, the points of which were allowed to project to the extent of a quarter of an inch. The prickly surface was applied to the skin of the abdomen on each side, and strapped on tightly. Notwithstanding these instruments of torture, the patient slept well all night, and her condition this morning is unaltered. Situation of pins very red, but corks again applied.

10th.—Anæsthesia has extended rather higher in the trunk; sensation both to touch and pain diminished from Poupart's ligament to an inch below the clavicle; liquor epispasticus applied to dorsal and lumbar regions with no beneficial result.

17th.—Faradaic current applied to both recti daily for three minutes, without result.

20th.—A large-sized galvanic belt, steeped in dilute acetic acid, was applied below the umbilicus to the bare skin for several days. This produced no effect save severe ulceration of the skin, which was not, however, felt. To avoid the ulceration a piece of lint, kept wet with the vinegar, was interposed between the belt and the skin, and it was now applied above the umbilicus. Two days after this application the abdomen was felt to be softer; on the fourth day the swelling had much diminished, on the fifth day it had entirely gone, and a fortnight afterwards the girl went home in the most perfect health.

I shall have very few remarks to make respecting this most singular and interesting case. One might heartily wish that the word hysteria were banished from our medical language—and indeed, so far as its etymological signification is concerned, from our medical thoughts. The uterus, as an important organ of the body during its physiological activity, certainly suffers with the rest; and often, no doubt, its disordered functions react on the nervous system, giving special characters to nervous disease; but I think to call such a case as the one I have related hystero-epilepsy is an abuse of terms. Here was a perfectly healthy, well-made girl, with her strength worked down by hard service and want of fresh air, becoming anæmic and "irregular" in consequence. The pressure upon the nervous system being continued and the hygienic conditions worse, the nervous balance becomes lost, and irregular discharges of nervous force, the so-called fits, ensue. No efficient means being taken to restore the equilibrium, the occasional clonic spasms become in the abdominal muscles and in those of the legs tonic, whilst clonic spasm still invades the muscles of the larynx. At the same time sensation is lost, general anæsthesia occurs, the ordinary lines of communication between the centres of conscious sensation and the distribution of the sensory nerves are blocked. There is nothing, surely, directly attributable to uterine causation in all this. Is it not one of a class of cases in which hysteria is used rather as a confession of ignorance than as a rational pathology? I have, however, no better pathological theory to offer further than what I have said as to the probability of its being a disease of exhaustion in a somewhat weakly balanced nervous organisation.

The treatment I adopted will almost explain itself. I had a patient with considerable intelligence evidently extremely anxious to get well. There was nothing radically wrong with the brain functionally or organically. There were no symptoms of uterine disease or of ovarian irritation. My object was to re-establish as quickly as possible the channel of communication between the nervous centres and the periphery, and I had all the senses except sensation to help me, and also the imagination. The readiest means which suggested itself was a modification of the old Inquisition torture, and it more than satisfied my expectations. The abdominal distension, which had been the longest symptom in duration, was the last to yield, but I believe it yielded eventually rather to the physical effects of the battery than to the curative power of the electricity, as we well know is the fact with certain analogous cases of aphonia. However, whatever the cause of the cure, it was effectual and complete, and the girl was restored to an active and useful life, which I believe she still continues to lead.

Wolverhampton.

FOREIGN BODIES IN THE AIR-PASSAGES.

BY E. S. STEVENSON, L.R.C.P., M.R.C.S., &c.

THE following two cases are interesting inasmuch as they illustrate the origin of some obscure lung diseases. The notes are taken from my case-book and abbreviated.

CASE 1.—In June, 1878, I was consulted by F. A——, a coloured man, complaining of a bad cough. F. A——, aged forty-five, has been a hard drinker, and has led a life of constant exposure. He has had the cough for three months, gets no rest from it; it is constant, and worries him much. It is harsh and dry, and he does not spit with it. On examination the chest presents no abnormal physical signs. Two months afterwards he called again, the cough as bad as ever; the drugs which he has taken to allay it have had little or no effect. He expectorates now a muco-purulent sputum, and indicates a spot to the left of the manubrium sterni where he feels a constant dull pain, increased by the act of coughing, but existing during rest. The cough is very spasmodic. The patient has lost flesh, and feels weaker. On auscultating moist râles are heard over and around the place where the pain is localised; there is no dulness. Ten days after he was worse. He coughs much, and brings up a green, cheesy, purulent material in large quantity, often by simply leaning down. The pain still "localised." He has a hectic look, perspires much, and has no appetite. Moist râles heard over the upper part of the left lung, front and back, and there is slight dulness. It appeared to me that the man was suffering from bronchectasis, the diagnosis pointing to a dilated bronchus; he was treated accordingly by medicated inhalations and cod-liver oil. The case then became rapidly worse, and I began to fear that there must be tubercular mischief, when one morning during my visit he showed me a hard substance which he had expectorated shortly before my call. On cleaning it, it turned out to be a broken piece of bone, the size of half a French bean, and serrated at its edges as if it had been acted upon by a bone-destroying agent. His wife, who was present at the time of the expulsion, corroborated the fact. She stated that after a very severe fit of coughing the bone had been brought up imbedded in muco-pus, and had been kept for my inspection. From that day the patient improved; the cough gradually abated, and the pain left him. Three

months afterwards he was about and working, and had considerably regained flesh.

CASE 2.—P. J——, aged forty-five, a farmer, and a farmer's son, has always been in good health; brothers and sisters all alive and healthy; mother suffers occasionally from attacks of petit mal. He consulted me eighteen months ago for a cough, which worried him much. He had no pain, no physical signs tending to show any organic lesion. Three months later he had symptoms of incipient phthisis, and a month ago his symptoms were these: has lost flesh, and feels weak; has a hectic look; perspires easily, and much at night; pulse 90, small, hard, and rapid; physically the left infra-clavicular area is flattened; there is puerile breathing over the apex of left lung in front, extending to axilla and backwards; no appreciable dulness; vocal resonance increased; voice husky; hacking cough; appetite good; tongue red; spits a white sputum. The days being very hot, he prefers going about to remaining at home; no temperature taken. He takes Grimault's syrup of hypophosphite of lime, as cod-liver oil does not agree even when given in ether; and at bedtime he takes a pill of quinine, opium, and belladonna, which gives him rest and checks the perspiration. Later on I had to stop this latter ingredient, as his tongue got very dry and throat very sore. He now complains of a dull pain localised to the upper surface of the cartilage of first left rib; over that spot moist râles are heard, and dulness detected; continues to bring up white mucus, but no blood. Shortly afterwards he caught cold, and his symptoms became aggravated by gastric derangement. He then took to his bed, feeling much exhausted, caused by diarrhœa. No vomiting, tongue very red and raw, small aphthous ulcers on edge, fungiform papillæ very prominent. Temperature varies from 99° to 101°. Feet œdematous and cold. In addition to the syrup, he takes a mixture of trisnitrate of bismuth and gum, and a mouth-wash of chlorate of potash. Two days later a severe attack of hæmoptysis occurred, and before my arrival the patient had lost a large quantity of blood. He was speechless, skin covered by a clammy sweat, extremities cold; pulse thready, irregular, and very rapid. Ergot in large doses was given; but later on ether spray was pumped over the surface corresponding to a cavity, and with the result of stopping the hæmorrhage. On auscultation crepitation was heard over the left lung, and on listening over the spot where the pain had been felt so long, all the symptoms of a large cavity were detected. Moreover, it was in that cavity that hæmorrhage had supervened; for every time the patient coughs up much blood, which comes out in large quantity, bright in colour, cavernous and amphoric breathing is detected, and on percussion a bruit de pôt-cassé is plainly heard. Then gradually these sounds disappear, to give rise, as the cavity fills again, to crepitation, getting coarser into bubbling sounds, until the blood is again expelled, almost welled out, and amphoric breathing is again heard. The man thought himself dying. I certainly thought that he was in articulo mortis. Six hours afterwards he had rallied a little and could write down his wishes. The pulse were still very weak, almost imperceptible, and must have been about 180 or 190, as it beat so fast and was so faint that I could not count it to a certainty. His sputa were composed of a yellow, cheesy, purulent substance streaked with blood. His treatment was a liberal supply of brandy, beef-tea, and a draught of aromatic sulphuric acid and morphia every three hours, the cough being very spasmodic. During this visit his sister gave me a piece of bone which had been expectorated by him a short time previous, his wife and sister being present. This bone was slightly larger than the one described in Case 1, and had the appearance of those fragments of bone one sees in a carelessly prepared hash; the edges were smooth, and it was evident that it belonged to the bone of a leg of mutton. It is now six weeks since the last event took place. P. J—— has rallied wonderfully; he coughs very much, and suffers from all the symptoms of a large pneumonic cavity.

Remarks.—There cannot exist any doubt as to the cause of all the mischief in both cases. In the first case the *origo mali* is evident from the fact of the patient having recovered almost immediately after the expulsion of the irritating cause. The second case is also clear, although the patient cannot recover. Neither patient ever remembered having swallowed anything the *wrong way*.

It is not unlikely that a good many of the so-called consumptions are due to a more direct cause than tubercles, especially in this country, where the climate is mild, where there is no pauperism, and where sunlight and air are not limited.

In the case of P. J—— an explanation not altogether hypothetical or visionary can be given. The bone having lodged in a bronchus, it created constant irritation, and finally ulcerated through the bronchus into the lung, then through a bloodvessel, causing the violent hæmoptysis. Had the hæmorrhage happened before, the recovery of P. J—— would have been likely. The impacted bone was washed by the blood constantly pouring around it, and forcing the bone from the material in which it was imbedded, and allowing of its expulsion during a fit of coughing.

I have mentioned the use of the ether spray in the treatment of this case. I am not aware that it has ever been mentioned before; it occurred to me when attending a patient with a dormant cavity, which was superficial enough to allow me to mark its progress, and in which hæmorrhage had taken place. I think that if the locality where the hæmorrhage takes place can be detected, and if the same be not too deep, the use of ether spray may be very useful, as it was in both these cases.

May, 1880.—P. J—— is dead, having lived four months after his first attack of hæmorrhage. No post-mortem was allowed.

Malmesbury, South Africa.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum allorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

LONDON HOSPITAL.

ACUTE YELLOW ATROPHY OF THE LIVER; NECROPSY; REMARKS.

(Under the care of Dr. RALFE.)

G. A——, aged eighteen, printer's assistant, was admitted from the receiving rooms of the hospital into Holland ward, July 31st, 1880, suffering from jaundice, but with no urgent symptoms. His mother stated that he was employed by a printer and stationer in the neighbourhood, and had enjoyed fairly good health. He had, however, undergone an operation at Moorfields some time back, and had been under treatment in the skin department of the London Hospital from time to time. The father was said to be rather "scorbutic," and several of the family had suffered from skin disease. There had been no other case of illness in the house from which the patient came. He had not been worried or anxious, nor had he received any other mental shock. There was no distinct history of syphilis, inherited or acquired, though the fact of the father suffering from skin disease raised a suspicion. The mother, however, was healthy. The patient had not been in contact with phosphorus in his trade pursuits, nor had he been exposed to malaria. The present illness commenced three weeks before admission, and came on the day after he had attended a "bean-feast" given by his employers. This was on a Saturday. On the Sunday he felt sick, but on Monday he went to work as usual. On Tuesday, however, he was compelled to lay up, and noticed he was yellow. From that time he had always felt nausea, and the jaundice had steadily increased. He had never felt the least pain anywhere.

On the day after admission, the patient, a well-nourished lad, was found to be deeply jaundiced, the skin hot and dry, emitting a peculiar clayey odour; no eruption was visible. Temperature 98° F.; pulse slow and full. The patient, though conscious, was drowsy and not very intelligent. The abdomen was moderately distended; the liver dulness was slightly diminished in right mammary line, and its lower margin was retracted within the ribs. He had no pain over the hepatic region, nor was any elicited by pressure; the other organs were normal.

On the 2nd the morning temperature was 99·5° F.; evening

97° F. He had been sick several times; he answered questions less readily, and was more drowsy.

On the 3rd the morning temperature was 97° F. He was sick all day, and the bowels were obstinately constipated. Only a very small amount of urine was passed, and this in bed. A sufficient quantity, however, was obtained by Dr. Wolfenden, the house-physician, for examination. He found the percentage of urea to be 1·9 gramme, the reaction extremely acid, specific gravity 1021, and a trace of albumen. Diffused through the urine were small whitish masses, and on standing a sediment fell, in which Dr. Wolfenden determined the presence of leucin and tyrosin. With glucose and sulphuric acid (applied after Francis's method) a faint, but still sufficiently distinct, purple ring was obtained. The area of hepatic dulness showed a diminution since the last note. At about 10 P.M. the patient suddenly commenced shouting and throwing himself about, and was quite unconscious of what was going on around him. This noisy delirium passed off in about half an hour, and the patient became quiet and somnolent. The liver appeared more tender, slight pressure causing the patient to cry out.

On the 4th the morning temperature was 97° F. Patient was very drowsy; could not be roused. The skin was hot and perspiring. Pulse full, bounding, and rapid. He had paroxysms of dyspnœa. At eight o'clock in the evening the temperature was 100·5° F. The patient was in a profound coma; the breathing was rapid and difficult, and the abdomen drawn in at each effort. The patient died shortly afterwards.

Necropsy, August 5th, fifteen hours after death.—Body well nourished, deeply jaundiced. An old scar like that caused by lupus on the face beside nose; no scars on genitals or groins; abdomen distended with gas. On section, the lower margin of the liver did not come into view, being covered by the ribs. The liver removed from the body weighed 2 lb. 2 oz. The gall-bladder was empty, and the common duct, though containing some thin yellowish mucus, did not appear obstructed. The left lobe was much shrunk, flabby, and wrinkled, and the surface was of an olive-green colour. The substance was friable and rotten, and without any appearance of lobules, the sections presenting a uniform greenish-yellow colour. The right lobe was considerably reduced in volume, but not to such an apparent degree as the left. The surface was of a dull red colour, intermixed with patches of greenish-yellow. On section masses of yellow were seen mixed irregularly with deeply reddened tissue, the latter being the most abundant of the two, and was also much firmer and denser than the yellow patches. Under the microscope prepared sections, taken from both tissues, showed that the liver-cells had entirely disappeared, and that the connective tissue was considerably increased. The blood was thin and dark-coloured, and ecchymoses were observed in the subserous structures. The spleen was enlarged, and there was some congestion of the bases of both lungs. The epithelium of the kidneys was undergoing fatty degeneration.

Remarks by Dr. RALFE.—The early supervention of jaundice of considerable intensity in this case, and the time that elapsed before the onset of grave symptoms, and also the fact that the illness was apparently excited by an indiscretion in diet, might at first seem to support the views of those who hold that the disease has a catarrhal origin, and that the icterus is hepatogenic rather than hæmatogenic, and that the fatty degeneration does not occur till the reabsorbed biliary acids have accumulated, owing to some special but not as yet explained condition, to a considerable extent in the blood. But the fact that the gall-bladder was found empty and shrunken, and that no apparent obstruction existed in the gall-ducts, is an objection to the acceptance of this view in the present case; though it might be suggested as possible that the secretion of bile during the last stage of the illness may have been completely arrested, and the bile previously accumulated reabsorbed. If, however, we accept the generally received opinion that the red atrophy is a more advanced condition than the yellow, and is only found in cases which run a slow course, then the great excess of the red over the yellow tissue in the present case leads to the conclusion that the atrophic changes had been in progress some time. Moreover, although the quantity of urea excreted in the twenty-four hours could not be determined, there can be little doubt that it was considerably reduced, since the amount of urine passed by the patient was extremely scanty, and the percentage of urea it contained not above the average. This reduction of the quantity of urea excreted also favours the view that the atrophic changes had been gradual and had commenced before the onset of the grave symptoms. As is well known, considerable discrepancy of opinion exists with regard to the excretion of urea in this disease; some observations recording an increase, others but slight diminution, whilst others note a decided decrease. Dr. Ralfe thinks these observations need not be considered contradictory, but that they express different stages in the progress of the disease. Thus in an early stage or where the disease runs a rapidly fatal course, urea will generally be found increased, an increase probably derived from the rapid metamorphosis of the nitrogenous constituents of the liver tissue itself; as the disease is prolonged the quantity of urea will gradually diminish. Thus in a patient of Dr. Murchison's (Case 103, "Lectures on Diseases of the Liver"), on the fourteenth day after grave symptoms had supervened, "a fair amount of urea" was noted in the urine, whilst on the twenty-third day it is recorded that the urine then contained "very little urea." In a boy aged seventeen years, under Dr. Ralfe's observation at the Seamen's Hospital, the urea was but slightly diminished; in this case the lad had been ill only a short time before he was admitted, and died three days afterwards. Finally, attention may be drawn to the change in the character of the pulse on the supervention of the nervous symptoms, and the sudden onset and brief duration of delirium which preceded the final coma as clinically characteristic.

WESTERN GENERAL DISPENSARY.

CASE OF ACUTE RHEUMATISM; ULCERATIVE ENDOCARDITIS; DEATH.

(Under the care of Dr. PRICKETT.)

FOR the following notes we are indebted to Mr. H. A. Powell, M.R.C.S.E., resident medical officer, who attended the case.

Elizabeth R——, tailoress, single, aged nineteen, was confined last Christmas with her first child, and recovered without any unfavourable symptoms. She was said to have had heart disease for some years, but, otherwise, she apparently enjoyed good health. Her sister and brother had both had rheumatic fever, and were suffering from mitral disease. Patient was not known to have had rheumatic fever; but she had scarlatina in childhood. She was quite well till March 3rd, 1881, when she caught a violent chill, and complained of severe headache and persistent vomiting, which compelled her to leave off work. She was first visited on the evening of March 7th; she had a dry skin, was rambling and could only be roused with difficulty; temperature 104° F.; pulse 130, regular and soft. With the exception of the headache, she complained of no particular pain; respiration 30; occasional cough; a few bronchitic râles could be heard. There was a loud systolic murmur, audible at the apex, which beat in the normal position. The tongue was dry; vomiting had ceased. A suspicious rose-coloured spot was seen on the abdomen; there was some gurgling in the right iliac fossa. The urine was almost normal in quantity, and contained one-sixth albumen. The following day patient appeared much the same, and at times complained of pain in the back. The bowels had acted naturally during the night; there was no abdominal pain or tenderness. On the 9th her mental condition was much worse; she rambled incoherently and was unable to answer any question. The right elbow and wrist were swollen, red, and painful. The urine contained one-fourth albumen. Nourishment still taken well. Ten grains of salicylate of soda were given every four hours. Next day the joints were better and the temperature went down to 99·6°. A little sleep was obtained during the night; in other respects she remained the same. On the following morning she was found much worse. There were sordes on the lips, the tongue was dry, brown, and leathery, and the muttering delirium was more marked. The joints were free from pain and redness. Râles more numerous and more distinct were heard over the chest; resonance normal both back and front. No tenderness or enlargement of liver or spleen. Dr. Prickett saw the patient in the afternoon, and came to the conclusion that she was suffering from septic poisoning, and suggested ulcerative endocarditis as the cause. She was then treated with ammonia and serpentary, and brandy was given in teaspoonful doses every hour. A change was observed in the

patient early the following morning, in consequence of which she was visited at 5 A.M. After lying in her sleep on the left side during the night she rolled, on waking, over on to her back, and immediately her left arm and leg were observed to be useless, while her right upper and lower limbs were jerked convulsively. Patient became perfectly unconscious and never spoke afterwards. The left eye was open and the pupil was dilated; the right was closed and the eyeball rolled upwards; the right side of the face was flushed; the left pale and dry; the head was turned to the right. Three petechiæ were noticed—one on the left upper eyelid, another on the left hip, and another near the left knee. Patient was soon moribund. The temperature gradually rose, till at midnight it had reached 105·4°. Shortly after which she died.

Necropsy.—Brain not examined. On the endocardium of the left auricle, and extending to the auricular surface of the mitral valves, was a patch of ulceration, rather larger than a shilling. The right side of the heart was healthy. The lungs were congested at the apices. Nothing abnormal was to be seen in the liver. The spleen was slightly enlarged and studded with infarcts, the largest of which was at the middle of the upper border and surrounded by intense hyperæmia; centrally most of the organ was diffluent. The kidneys were slightly enlarged; the capsules peeled off readily; both organs contained numerous infarcts, decolourised, and not appearing softer than the surrounding tissue.

AYR COUNTY HOSPITAL.

SURGICAL CASES.

(Under the care of Dr. W. J. NAISMITH.)

THE following interesting cases have lately been treated at this hospital.

Nerve-stretching.—J. L——, a miner, aged fifty-four, was admitted August 3rd, 1879, with intense sciatica on the left side. He had formerly been a labourer, when he was exposed to all weathers, and he was much addicted to alcohol drinking. His appearance was strikingly indicative of a broken down constitution. He had been in various hospitals within the last seven years, during which period he had been a martyr to his complaint. He had had all kinds of treatment, including blisters, liniments, subcutaneous injections, courses of iron, arsenic, quinine, &c., together with acupuncture, and the application of the button cautery, but all to no purpose. It was therefore resolved to try stretching the sciatic nerve; and the operation was performed under chloroform on August 10th in the usual manner, and without strict antiseptics, though dressings of carbolic oil, one to twenty, were used. For the first week there was a slight rise of temperature, and pain was complained of in the wound, but these symptoms subsided, and the man made a good recovery, expressing himself grateful for his entire immunity from his old sciatic pain since the day of the operation. This patient was under observation for three months, and during that time there had been no return of his complaint.

Amputation of Forearm in a Child.—T. M——, a child sixteen months old, was admitted in August, 1879, with complete laceration, from an accident with a churning machine, of right hand and forearm, necessitating immediate amputation. This was performed under chloroform, high up—that is, in the upper third of the forearm—by transfixion, and with double semilunar flaps, the vessels being easily secured. Strict antisepticism was not employed, though the stump was dressed with lint, soaked in carbolic oil, one to twenty. The patient was discharged in fifteen days with the cicatrix all but complete.

Amputation of Thigh.—J. G——, aged five years, was admitted, suffering from scrofulous disease of the right knee-joint, which had evidently attained the stage of cartilaginous ulceration. The patient was a poor, sickly little boy in a hectic state, emaciated and racked with pain. The muscles of the limb were characteristically atrophied, and there was globular elastic distension of the knee-joint, with prominence of the superficial veins. The disease was of eighteen months' standing, and the child's general health was evidently fast giving way under the pain, and wakeful nights induced by startings of the limb which he experienced. Amputation was performed, under chloroform, at the lower third of the thigh, by the method of Spence's modification of Teale's operation, and the antiseptic system of Lister was carefully employed. The pulse and temperature, which rose after the operation, subsided to normal on the third day. The stump was dressed on the fifth day under carbolic spray, and the wound continued to heal rapidly without suppuration. The discharge under the dressing remained serous throughout till complete union had taken place in about three weeks. The boy left the hospital gaining flesh rapidly.

Strangulated Inguinal Hernia.—R. G——, aged sixty, a lamplighter, in descending a ladder while in the pursuit of his calling felt something "suddenly give way" in the region of his left groin. He afterwards noticed a swelling there, but paid no further attention to it, in spite of the onset of graver symptoms, such as pain, rigors, and vomiting. He did not apply for admission till the tenth day after descent of the hernia. On admission, there was a left inguinal hernia of the size of a walnut, tense and painful, pain extending to the abdomen, which was swollen and tympanitic. Pulse 120, compressible; temperature 101°. The countenance was pale and anxious. He stated that he had had rigors, vomiting, and complete stoppage of the bowels for three or four days before admission. Attempts at reduction under chloroform having failed, the operation for inguinal hernia was at once performed. The stricture was found at the external abdominal ring, division of the internal pillar of this opening at once relieving the constriction. As the previous long-continued pain and vomiting rendered the condition of the bowel doubtful, the sac was opened, and the knuckle of gut thus exposed was found to be darkly purple in colour, and emitting a somewhat gangrenous odour. Under these circumstances it was not returned, but left near the margin of the wound, the lips of which were approximated by a few points of suture and dressed with a pad of lint. An opiate was given in the evening, when all vomiting had ceased. On the third day the pulse and temperature were normal, the abdominal tympanitis had disappeared, and the patient was free from all pain. He made a good recovery, having been a month in hospital.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Molluscum Contagiosum. — Hepatic Abscess. — External Hydrocephalus. — Sarcoma of Kidney. — Aneurisms of Cerebral Arteries.—Colloid Cancer involving the Spleen.—Spontaneous Disintegration of Calculi. — Intussusception.—Abdominal Tumour.

THE ordinary meeting of this Society was held on Tuesday, May 3rd, the President, S. Wilks, Esq., M.D., in the chair. The meeting was prolonged beyond the usual hour, as there was a large number of specimens brought for exhibition.

Dr. BASIL G. MORRISON read a joint paper by Dr. ALEXANDER MORRISON and himself, entitled Observations on the Nature and Affinities of Molluscum Contagiosum. After stating various views on the subject of molluscum contagiosum, he drew a comparison between the appearances in (1) normal skin from the perineum, (2) hair-follicles and sebaceous glands in the external meatus of the ear, (3) molluscum contagiosum, and (4) an ordinary wart from the scalp. The hair-follicles in the normal skin, and those of the external meatus, he said, are formed of a diverticulum from the rete mucosum, and in the case of molluscum the outer layer is formed of the same. In the normal skin he observed, besides the usual hair-follicles, interpapillary crypts, some of which might be the usual depressions deeper than is the rule, and some of which were atrophic hair-sheaths. In the hair-follicles and glands of the meatus, he said, there was an overgrowth of the peripheral cells and periplast, ending in degeneration at the interior of the follicle to form sebaceous matter. In molluscum contagiosum the change corresponded precisely with that seen in the specimens from the ear meatus. The vacuolation so called was not peculiar

to molluscum, but was characteristic of all rapidly growing epithelial cells, and did not indicate an actual emptying out of cell contents, but a transformation of them into a transparent material which could be stained by picric acid. The molluscous bodies were cells which had undergone this change, which is essentially the same as the formation of sebum. The wart was noteworthy only as showing a general process of vacuolation like that in molluscum. The part primarily affected in molluscum was the hair-follicle with the sebaceous gland, or one of the crypts described in normal skin. The formation of sebum-like matter was due to degeneration of cells proliferated into a nearly closed cavity instead of on the cuticular surface. There was uniform hypertrophy of the skin at the free surface in Dr. Morrison's specimens of molluscum, but no trace of the changes described by Lukomsky. The cause of the disease Dr. Morrison said was to be found in the action of any irritant at the part first affected. He could find no proof of a specific agent. Irritation was enough to cause hypertrophy of epithelium, the essential change in molluscum.—Dr. RADCLIFFE CROCKER thought that Dr. Morrison's specimens were taken from fully developed tumours, while it is only when the very earliest growths are examined that their nature can be demonstrated. Such specimens prove the change to start in the rete mucosum, independently of any involutions, in which molluscous bodies appear. A few molluscous bodies can also be seen in otherwise healthy hair-follicles. There are analogies between the tumours and sebaceous glands, but by no means identity, and the peculiar substance has been demonstrated to be neither sebum nor amyloid.—Dr. MORRISON did not consider the formation of molluscum bodies peculiar to this disease, but characteristic of hypertrophying epithelium.

Sir JOSEPH FAYRER showed two specimens of Abscess of the Liver, representing two distinct forms, both contracted in India. One illustrated the multiple pyæmic abscess often following dysentery, the other followed diarrhœa, but was a large single abscess, such as occurs independently of intestinal mischief. The first was taken from a Hindoo, aged twenty-four, who had diarrhœa for a month with fever. He was weak, and had great pain in the belly over the ascending colon, where there was dulness on percussion. He passed several sloughs in his stools. The temperature rose in the evening to 102°, but fell just before death. Post-mortem examination showed small intestines distended with flatus, liver adherent to diaphragm, about normal size, both surfaces covered with nodules, which were abscesses varying in size from a hen's egg to a hazel nut, each circumscribed by a zone of injected tissue. Colon œdematous, thickened in places, atrophied in others. He believed these abscesses started as small local necroses around which suppuration occurred. The second case was that of an officer aged forty-five, of temperate habits; he had dysentery twice, on both occasions accompanied by severe pain over the liver. He also had frequent attacks of malaria. On arrival home he was emaciated, temperature 103°. Bulging and fluctuation over the back of the liver. A large abscess was evidently pointing, and near the surface. It was opened freely, and a pint of pus evacuated. One edge of the ninth rib was necrosed. When liver abscesses point behind there is a great liability to necrosis of ribs. The temperature fell to 99°, and he improved for a few days, but six days later he was seized with severe bleeding, and he died. Post mortem the right lung was condensed. A firm clot was found adherent to the pulmonary artery. Mr. Doran examined the parts. The history pointed to a dysenteric liver abscess, probably multiple, but it proved to be single, and contracted well after its evacuation. He had never seen better examples of the two kinds of liver abscesses, and the latter shows how successful free opening and drainage of large abscesses may be; aspiration is not nearly so useful, as after it the matter reaccumulates.

Dr. DICKINSON showed a specimen of Abscess of the Liver. An artisan aged thirty-four had enjoyed perfect health till one day he went to a boat-race, where he felt cold. Afterwards he ate fifteen mussels with his dinner. Half an hour later he felt ill and had pain in the belly. During the night he was purged, and the diarrhœa lasted for six weeks, till his death. He passed blood and mucus. He was admitted under Dr. Dickinson into St. George's Hospital. His motions were not dysenteric, but uniformly fluid, dotted with blood. His temperature varied from 98° to 103°. There was some fulness on the right side, but no evident enlargement of the liver. At the autopsy the large intestine was in the state of most characteristic dysenteric ulceration in its whole length. There was also a large single abscess at the back of the right lobe of the liver, holding about four ounces of pus. There was also serous pleurisy on the right side. There could be no doubt that his disease arose from the bowel disturbance, and there was no other conceivable cause for the abscess. The case gave strong support to Dr. Budd's view that hepatic abscess is due to some poisonous matter conveyed by the portal vein. The poison of dysentery may be different from that of pyæmia, and this conveyed to the liver may be well capable of exciting abscess. The statistics of Dr. Waring of Madras show that 72 per cent. of fatal cases of abscess of the liver are connected with dysentery; and further, while dysentery may disappear the abscesses cannot, and therefore these figures may not express the whole truth. In 1862 Dr. Dickinson published a case of abscess of the liver in the Path. Soc. Transactions, in which there was an enormous abscess and signs of old dysentery.—Dr. WILKS thought Dr. Dickinson quite right as far as home experience went, but asked if all tropical surgeons did not say that hepatic abscess may occur without dysentery.—Sir JOSEPH FAYRER replied that the large number of cases of liver abscesses have nothing to do with diarrhœa or dysentery. When they have they are most often multiple, and are due to embolisms, but may in a few cases be single.—Dr. LONGHURST agreed with Sir J. Fayrer in thinking single abscesses generally independent of dysentery, but the two affections might be associated. Among natives dysentery is much less commonly associated with abscess than in Europeans, which may be explained by different diet. In the dysentery in the Crimea, hepatic abscess was quite an exception, and it is rare also to find it in English dysentery. But multiple abscess is no doubt due to dysentery.—Dr. N. MOORE thought that primary abscess of the liver being unknown in this country, when found with dysentery we must say that it is dependent upon it. He related a case in which an hepatic abscess was due apparently to an old sinus in the leg. The multiple abscesses have all the appearance of local necroses.—Mr. ALBAN DORAN stated that one of his sections of one of the multiple abscesses was more like an old splenic infarct than anything else—it was dead, not inflamed, tissue.—Dr. F. TAYLOR related a case of Simple Ulceration of the Intestine from a dermoid cyst of the ovary, associated with an abscess of the liver. There were also an old empyema, and a large psoas abscess and diseased bone.—Sir J. FAYRER had seen many cases of abscess of the liver associated with surgical injuries, diseases, and operations.—Dr. DAY had seen cases of pyæmia with small scattered abscesses in the liver and lung.—Dr. WILKS stated that Indian practitioners held that a hepatitis ending in abscess might be primary.—Sir J. FAYRER said that the most recent statistics did not support Dr. Waring's.—Dr. DICKINSON replied that, of course, dysentery might occur without abscess, but doubted if abscess occurred without dysentery.—Dr. S. WEST quoted a case of a man who after a bean-feast had abdominal pain and a very large hepatic abscess; he never had any symptoms of diarrhœa or dysentery.—Dr. O'CONNOR referred to the case of a man of very intemperate habits. After a severe rigor swelling of the liver was found, and on puncturing it sixteen ounces of pus were withdrawn. There was no diarrhœa or dysentery throughout.

Dr. EDMUNDS showed a specimen of External Hydrocephalus. A child, aged two, an idiot, had never spoken or walked, and was blind. Mr. Nettleship found pallor of the optic discs only. Suddenly a fit came on, and next day he died. On opening the skull eight ounces of fluid flowed out; the brain did not fill the cavity. The optic thalami were both shrunken. There was a family history of mental affection.—Dr. HALE WHITE referred to a family of five in which four were hydrocephalic, and to seven other cases of hydrocephalus of whom two had hydrocephalic relations, and two others had relations with large heads. Of these eight cases the bones of the head were fully ossified in two, and the sutures almost closed in two others.—The PRESIDENT remarked that while formerly hydrocephalus with large head was stated to be sometimes external and sometimes internal, it had now been shown that in all such cases the fluid was contained in the ventricles of the brain; and Dr. Edmunds's case was no exception to the rule, for the head was not a large one, but of the usual size, and it was an interesting question to decide whether the secretion of the fluid was primary or secondary to the small brain.

Dr. ABERCROMBIE showed drawings and sections of a Growth in the Hilus of the Kidney, with secondary growths in each kidney. The tumour was a small round-celled growth, and was similar to three cases shown by him last session.

Dr. W. M. ORD showed three specimens, the first of Spontaneous Disintegration of Vesical Calculi. This was the sixth specimen of the kind which Dr. Ord had exhibited before the Society. He was allowed to do so by the kindness of Mr. Thomas Smith, of St. Bartholomew's Hospital, who had sent him the calculi for examination. The fragments, weighing over three ounces, represented a large number of pisiform calculi, and had been removed from a man aged sixty-nine by Mr. Thomas Smith. Their removal was effected at two sittings, by means of Bigelow's apparatus, some of the pieces having been crushed on the second occasion. The fracture, however, of most of them had evidently occurred before, the broken surfaces and edges being smoothed by friction and covered by new deposit. The calculi were mainly composed of uric acid. They appear to have fallen to pieces from without inward, not to have been disrupted from within. Their disintegration appeared to be due partly to their feeble cohesion and their friability, partly to the presence of a minute fungus closely allied to, if not identical with, penicillum glaucum. The second case was of Aneurisms of Cerebral Arteries. The specimen showed three aneurisms, one of the anterior communicating artery of the circle of Willis, one on a branch of the right middle cerebral, one on a branch of the right anterior cerebral. The first two were of the size of large peas, the third very small indeed. The basilar and other large arteries were marked with transverse rings of calcareous degeneration; there were no minute aneurisms in the fine arteries. The subject was a woman aged fifty, who was suddenly seized with apoplexy, and died in a few hours after two attacks of convulsions. The cause of death was rupture of the aneurism of the anterior communicating artery, with extravasation over the surface of the hemispheres beneath the arachnoid. There was no affection of the valves of the heart, but moderately advanced granular contracted kidney. The third was a specimen of Colloid Cancer of the Spleen. The specimen was obtained from the body of a man aged thirty-five, who had enormous colloid cancer of the parietal peritoneum and omentum. The growth invested the liver and stomach, but did not invade their tissue. The coats of the intestines were not affected, but the spleen was invested and invaded by the colloid, so that little of its proper tissue was left. The colloid had also projected in a hernial fashion at the umbilicus, and through other parts of the abdominal wall, displacing the muscles without involving them. Colloid invading the spleen is so rare that Dr. Ord thought it right to exhibit the specimen. Two cases had been described in the Transactions of the Society, one by Sir William Jenner and Dr. Quain, the other by Dr. O'Connor. A third had been reported by Dr. Schweninger in 1876.

Dr. TURNER showed a specimen of Intussusception. A month after admission to the North Eastern Hospital a child, while still confined to bed, was seized with symptoms of intussusception. A typical tumour was felt in the position of the transverse colon. Injection of water into the colon made it recede to the right groin. After six days scybalous motions were passed; but peritonitis came on, and death ensued on the tenth day. The intussusception consisted of a part of the ileum passed through the ileo-cæcal valve. There was no extravasation of fæces. On manipulation the intestine at once ruptured. There was extensive ulceration of the cæcum below the valve, probably due to the irritant effects of the intussuscepted bowel; but the ulcers may have been anterior to the intussusception, and such a view afforded a possible explanation of the occurrence of the intussusception under otherwise unlikely circumstances.

Dr. DAY showed a Tumour removed after death from a girl aged four. Mr. K. Thornton made an exploratory incision and found the tumour to be solid. The tumour extended from the second right rib and filled nearly the whole of the belly; the liver was displaced to the left, the lungs hidden, and the apex beat of the heart was under the left second rib. The tumour grew in two months.—Mr. A. DORAN stated that the tumour was a spindle and round-celled sarcoma.

Mr. SHATTOCK showed a card specimen of atresia of aortic orifice with adhesion of the valves.

The meeting then adjourned.

EPIDEMIOLOGICAL SOCIETY.

AT the meeting of this Society on the 6th ult., Sir Joseph Fayrer, K.C.S.I., President, in the chair,

Dr. JOSEPH EWART read a paper on Scrofula, Tuberculosis, and Phthisis in India. Prior to the year 1840 we do not find much mention made of these deviations from health. Green, in 1845, proved the existence of phthisis among natives of Hourah and Midnapore, and Edward Goodeve, in the same year, made similar observations among patients attending the civil hospital and dispensary at Cawnpore. Since then the prevalence of scrofula and tuberculosis in various phases had been recognised by Allan Webb, T. W. Wilson, Morehead, and the author. Admitting these facts, there is, nevertheless, evidence from experience and the statistics of Dr. Bryden to show that phthisis is not nearly so frequent among natives as among European soldiers and their families. This observation is upheld in drawing a comparison between the gaol population and the British soldiers, somewhat modified, it is true, in Lower Bengal and Assam by excessive overcrowding. The comparative infrequency of pulmonary tuberculosis forms no exception to the predominating rule, even when full allowance has been made for latent and undiscovered tubercle. It is quite rare to hear of whole families, or of several members of a native family, being carried off by phthisis. White swellings of joints and strumous enlargements of the glands, or cicatrices resulting from suppurating scrofulous glands, are comparatively infrequent. According to Bryden, the admissions per 1000 of strength with phthisis during the six years ending 1876, amounted to 9·0 among the soldiers of the European army of India, to 8·8 among those of Bengal, to 10·8 among those of Madras, and to 8·0 among those of Bombay; to 9·6 among women of the European army of India, to 10·4 among those of Bengal, to 8·0 among those of Madras, and to 8·7 among those of Bombay; to 8·3 among the children of the European army of India, to 8·2 among those of Bengal, to 8·7 among those of Madras, and 8·2 among those of Bombay. In the British army generally, during 1861–62, the ratio of admissions with phthisis per mille was from 9 to 10 of mean strength; and in the American army, during 1861 to 1863, from 8 to 9 per 1000. In the native army of the Bengal Presidency the corresponding ratio during 1871 to 1876 amounted to 2·5; Bengal proper and Assam to 3·9; the Gangetic Provinces to 2·9; Rohilcund and Meerut to 3·0; Agra and Central India to 2·6; the Punjab frontier force to 2·1; and of the Central India irregular force to 0·8. For the same period, the ratio of admissions with phthisis per mille of native prisoners in Bengal amounted to 4·2; in Lower Bengal and Assam (where overcrowding and humidity are excessive) to 8·9; in the Gangetic Provinces and Oude to 3·2; in the Central Provinces, excluding Saugor and Jubbulpore, to 1·5; in Agra and Central India to 2·1; in Rohilcund and Meerut to 2·8, and in the Punjab to 2·1. The comparative infrequency of tubercular disease among natives is attributed (1) to the open-air life led by the people and the respiration of air uncontaminated, to an unusually great extent, with the products of that which has already been breathed; (2) to the wholesomeness of the food consumed, which is composed of a large proportion of the vegetable, with a minimum of the animal, aliment, and is well seasoned, well cooked, and presented in an easily digestible form; (3) to the general temperance of the people, and the habit of the protracted suckling of the young often beyond the completion of the first dentition, or even longer; (4) to the influence of high temperature in mitigating the severity of bronchial, pulmonary, and pleuritic disease; (5) to the greatly diminished prevalence of measles, whooping-cough, scarlatina, mumps, &c.; (6) to the comparative exemption of native children and youths from inherited scrofula. The vexed question as to whether longevity is promoted by transferring persons predisposed to scrofula, or actually suffering from tuberculosis or confirmed phthisis, from this and other temperate latitudes to India, was next dealt with. There is an impression that persons born of tubercular parents, but in whom there is no evidence of tubercular growth, do better in India than at home. They certainly escape to a marked extent the frequent attacks of bronchial catarrh, pneumonia, and pleurisy, which are rightly associated with the origin of tubercular

growth in the bronchial glands and the pulmonary parenchyma. In so far as this is so, such persons are benefited. The greater exemption of children and youths from measles, scarlatina, whooping-cough, and mumps is also a clear advantage. Again, the warmth of the climate is soothing to the pulmonary mucous membrane, whilst the freer action of the skin, so long as it is not profuse, and the greater expansion of the chest due to rarefaction of the air, may be regarded as favourable. But these advantages are to a great extent counteracted by repeated attacks of malarious and season fevers, which not only light up tuberculosis in the predisposed, but in the course of time produce anæmia and cachexia, also conducive to its development in such individuals. The dampness of the climate in many parts, together with the great and exhausting heat, contribute to this dyscrasia. Add to these an unusual proclivity to serious bowel complaints, and then not much will remain to be said in favour of advising those descended from consumptive parents to exchange a career at home for one in India. The causes already mentioned, rightly understood, go far to explain why, in such cases, the tendency is rather to the progressive augmentation of tubercle in the lungs than to its arrest or diminution, with or without—as the disease advances—tubercular ulceration of the solitary glands of the large and small intestine, and of the agminated glands of the ileum.—In the discussion which followed, Dr. Murray, Dr. Gordon, Dr. Russell, Dr. Lilburn, Dr. Douglas Powell, Dr. Buchanan, and the President took part.

Dr. BUCHANAN read for Dr. Squire an account by Dr. Léon Colin of the Destruction by Small-pox of a Troupe of Esquimaux who recently visited Germany and France.

OBSTETRICAL SOCIETY OF LONDON.

AT the meeting of this Society, held on the 6th ult., Dr. Matthews Duncan, President in the chair,

Mr. DORAN showed Microscopic Sections from a Dermoid Cyst, removed by Mr. Thornton from a woman, aged thirty-one. The wall consisted mainly of patches of true skin, with sebaceous glands and hair-follicles. There were tooth-like bodies, which consisted of cartilage. Small secondary cysts projected from the inner wall. In certain long, narrow cavities in the subcutaneous tissue was seen well-formed mucous membrane, having a perfect cylindrical epithelium, with numerous involutions.

Mr. KNOWSLEY THORNTON showed a Dermoid Cyst of the left ovary, which had been entirely twisted off from its pedicle, and had become attached to the right side of the omentum. The patient first came under his care seven years ago with a doubtful abdominal tumour. She had since had four children, and during the last pregnancy the tumour gave her great pain. On April 2nd, Mr. Thornton removed the tumour together with a cystic tube, the remains of the twisted pedicle on the left side, and a cystic right ovary.

Mr. DORAN showed also a Female Fœtus which displayed extreme arrest of development of the genito-urinary tract. It was born at the seventh month, and breathed for a quarter of an hour. There was ectopia of abdominal viscera, club-foot, and spina bifida. The bladder consisted of two lobes, and between them, superiorly, the intestine opened from above. The ureters were impervious. On the right side was a Fallopian tube, and tubular, thick-walled half-uterus; ovary atrophied. On the left an ovary and Fallopian tube, the uterus being an impervious cord.

The PRESIDENT exhibited several small Oxalic Acid Calculi, which had been removed from the wall of the female urethra, in which they had become imbedded.

Dr. GODSON showed the Uterus, &c., of a woman aged twenty-five who had died in the Dorking Infirmary. Mr. Hopcroft, who sent up the specimen, could give no history except that the woman was believed to be unmarried, and was in a dying state when admitted. Two pints of blood were found within the peritoneum, old adhesions attached omentum, &c., to the uterus, both Fallopian tubes were dilated and tortuous. The outer end of the right tube enclosed a fœtus of about six weeks' development in a fleshy mass containing villi. He thought the adhesions might have been due to gonorrhœa.

The debate on Dr. Barnes's paper "On Missed Labour" was then resumed.

Dr. JACKSON related the case of a lady who, when three months and a half advanced in pregnancy, underwent great fatigue in travelling in India. After this there was no increase of size, but menstruation did not recur. About the time that labour should have taken place she took a long ride on a restive horse, expulsive pains were induced, and an oval mass containing a very small fœtus came away.—Dr. EDIS said that several instances had been recorded by different authors, as Simpson, Meigs, and Atlee, in which gestation had been prolonged for one, two, or three months beyond the normal time. But in many such cases there was strong presumptive evidence that they were really instances of extra-uterine gestation, the supposed cervix being really a fistulous opening. Dr. Müller, after investigating forty-five cases of alleged missed labour, concluded that "there does not exist an authentic observation of retention of the fœtus within the womb beyond the term of ordinary pregnancy." In this conclusion he fully agreed, unless Dr. Barnes's case were an exception; but even this might have been partly interstitial, and not an ordinary intra-uterine pregnancy.—Dr. GALABIN had met with one case of supposed missed labour, which tended to confirm the view that many cases so described were really instances of extra-uterine fœtation. There was an effort at labour at full term, and he saw the patient two months later. There was then a sanguineous, somewhat offensive, discharge from the vagina, and the patient's condition had become grave. A catheter was passed through the cervix into a cavity resembling the uterus, and gave exit to a fluid like that which had escaped from the vagina. After dilatation of the cervix by a tent the breech of the fœtus could be felt, presenting through a round opening, which seemed to be the internal os. This turned out to be an aperture in the uterine wall at the point at which it was sharply retroflexed, and the gestation proved to be abdominal, the sac lying in front of the fundus. If no autopsy had been made all who saw the case would have continued to suppose the fœtus intra-uterine.—The PRESIDENT said that for his own part he believed in the occurrence of protracted gestation and missed labour. The probability of their occurrence was much supported by the facts that they occurred in the lower animals, and that missed abortion or missed miscarriage occurred certainly in women. He did not think the occurrence of labour premonitions a necessary part of missed labour. He thought the term lithopædion, at present often used as synonymous with mummified fœtus, should be better defined. The fœtus never became calcified like a uterine fibroid, but calcification affected only the membranes, and sometimes the adjacent parts of the fœtus.—Dr. GODSON called attention to a case which came under his observation at St. Bartholomew's, which formed the basis of a paper by Dr. Greenhalgh on "Missed Labour" in the eighth volume of the Hospital Reports. The case was one of "missed abortion," and not of "missed labour," and the head of the fœtus should have been described as of four months and a half, not of six months' development.—Dr. BARNES, in reply, said in reference to Mr. Spencer Wells's suggestion that the pregnancy might have been intra-mural, that there was no evidence in favour of it, and intra-mural gestation generally ended by a fatal cataclysm at the second or third month. The rhythmical action of the uterus could not be expected to be detected when the uterine contractility was impaired after the death of the fœtus. He would make a point of studying Dr. Duncan's cases. Meantime he thought that protracted gestation for an indefinite time required better proof than we possessed. He thought the term "missed abortion" a singularly unhappy one, and that the term "concealed" or "incomplete abortion" was much to be preferred. He could not agree with Dr. Duncan that the terms lithopædion and mummified fœtus were commonly used as synonymous. A "stone child" should at least be stony, and the distinction was the more important since Cruveilhier had insisted, rightly as he believed, that a lithopædion was never found in the uterus.

Dr. HEYWOOD SMITH related a Case of Delivery through an Imperforate Vagina. The patient was thirty-one years old, married ten years; pregnant for the first time. The vagina was only one and a half inches long, and was completely closed by a roof of the normal thickness of vaginal tissue. It was congenital, and there was no cicatricial tissue. Her mother, a trained nurse, was aware of the malformation. The author was called to see the patient at the British Lying-

in Hospital, when she had been in labour thirty hours. On admission the urethra was so patent as to admit nearly two fingers, and, from the husband's account, coitus probably took place per urethram. The vaginal roof was lax, as the head was arrested at the brim. The os was completely dilated, and the bones of the head had begun to overlap. A careful examination failed to discover the slightest depression, or any indication as to any aperture, however small. The patient was therefore placed under chloroform, the vaginal roof was picked up with forceps, and a cut made at once with scissors directly through it, when, the finger being passed through the aperture thus made, the head was felt; the opening was then enlarged by tearing with the fingers until a passage was formed large enough for delivery, which was speedily effected by means of the long forceps, and a living female child extracted. The patient made a good recovery, and examination last December showed a normal vagina with but a slight constriction, not at all hard, formed by the remains of the previous vaginal roof.

Dr. PERCY BOULTON narrated a case of Imperforate Vagina. The patient was aged eighteen, married. Catamenia were always very painful, and were followed by "green waters" for several days. The vagina was found to be a cul-de-sac about one and a half inches deep, and no opening whatever could be felt. An examination was made under chloroform, and a dilating speculum introduced. On either side of the vaginal terminus a small opening was then found, through which a probe could be passed. The openings were dilated with tangle, and there were then found—(1) a normal uterus, (2) a tripartite vagina, the upper portion being duplex, separated by a septum, which formed a triangle, with its base downward. A small communication between the two was found close up to the vaginal neck. The central block was divided by passing whipcord round by a sound having an eye at the end, and attaching it to an écraseur. A vulcanite vaginal plug was worn for three weeks, and the patient then went home well.

MEDICAL OFFICERS OF HEALTH SOCIETY.

AT a meeting of this Society held at 1, Adam-street, Adelphi, on the 22nd ult., Dr. John Syer Bristowe in the chair, Dr. C. KELLY read a paper on "The Distribution of Diphtheria in West Sussex." The object of the paper was to give an account of the conditions under which diphtheria appeared during the past six years in West Sussex, and to show the influence of soil and weather on its distribution. After describing the geology of the district, Dr. Kelly pointed out by a series of statistical tables that diphtheria is far more frequent upon a stiff clay soil than it is upon more porous formations, the disease rate showing the difference much more forcibly than the death-rate. Omitting the gault, where the facts are too few to be of value, the weald clay stands first as being the formation on which the disorder is chiefly prevalent, while the porous Folkestone and Sandgate beds of the lower greensand are nearly free from the disease. On the pervious chalk very few cases are met with, while on the upper greensand, which lies to the north of the chalk hills, cases frequently occur. It is not difficult to show that there is a general relation between the rainfall and the prevalence of diphtheria. The years in which the greatest rainfall took place were accompanied by a greater number of cases. A comparison between the rainfall and the number of cases of diphtheria of different years can only be roughly approximative, because when once the disease has become epidemic its continuance may extend beyond a period of wet weather. The year 1879 was the wettest year known since 1860, and there was a marked increase in the number of cases of this disease. Most of the outbreaks of diphtheria in West Sussex have occurred round commons or village greens, a cold damp air appearing to favour the spread of the disease. Tables were shown in which it appeared that half the cases of diphtheria were between three and nine years of age; very few infants are attacked even when other members of the family are suffering from the disorder. The death return is not a good criterion of the prevalence of the disease in different years. In one year a large number of cases was attended by a very low mortality, while in another epidemic, although but a few persons were attacked, they nearly all died. The number of new cases in each month varied very much. In 1875 the greatest number occurred in May; in 1876, in September, October, and November; in 1877, in July, August, September, and November; in 1878, in March, April, and November; in 1879 the number was high in every month except August and September; and in 1880 the greatest number occurred in July and September, while there were none in the last three months of the year. The occupation of the people is chiefly agricultural. There is no material difference in the mode of living in the different parts of the district. Some of the cottages are good, but the disorder has not fallen with greater severity on the very poor than on those who are more comfortably housed; for in many old cottages which are hardly fit to live in, the disease has attacked the inmates less severely than those who live in comfortable and substantial cottages. One point may be noticed in the condition of the people who live in the district where diphtheria is most prevalent, and that is the close relationship of many of the families; intermarriage is very common, and an infusion of fresh blood is not often noticed. In such districts the children are fairly fed, but they do not seem able to resist any acute attacks of disease; they are not intelligent, and seldom make much progress with their education. Diphtheria is distinctly a disease of rural districts, and differs from other catching disorders in being most prevalent in those cases where the people are thinly spread, and where isolation exists naturally. It is worthy of notice that children who are attacked are generally those who have to go long distances to school, and the condition of the road is such that they are invariably exposed to wet and cold. Finally, Dr. Kelly has found no relation to exist between animals and vegetables on the one hand, and diphtheria on the other. In the discussion which followed, the President, Dr. Bond, Dr. Corner, Dr. Tripe, and Mr. Shirley Murphy took part.

WEST HERTS MEDICAL ASSOCIATION.

THE sixty-sixth half-yearly meeting of this Society was held at Watford on the 20th ult., Dr. P. Hood, the President, in the chair. Dr. A. Clarke read an interesting paper on the Treatment of Diphtheria, being the continuation of a paper that he had read to the Society on a former occasion. In the discussion which followed most of the members took part. Dr. Steel exhibited a Calculus that he had extracted from a youth aged eighteen. It had also been exhibited to the Pathological Society; and it was considered peculiar, as it consisted of cystine, but having a well-marked ring of oxalate of lime in the middle of the stone. Dr. Paxon exhibited part of the Index-finger, which had been torn off by machinery, and had drawn out with it twelve inches of tendon. The man made a good recovery. Dr. F. H. Berry exhibited the Supra-renal Capsules from a patient who had lately died of Addison's disease. The boy was eighteen years of age, deeply bronzed. He had been in the infirmary several times, with no definite symptoms except weakness, and during the last illness obstinate vomiting. He died suddenly. The supra-renal capsules were both affected, filled with tubercular masses, and gritty to the feel. Dr. Brett brought a boy on whom he had performed tracheotomy for diphtheria. He was six years old. Drs. Hobson and Paxon promised to read cases at the next meeting in October.

Dr. Iles was elected treasurer, and Dr. A. T. Brett continued honorary secretary.

BEQUESTS AND DONATIONS TO MEDICAL CHARITIES. Mr. Samuel Courtauld, late of Gosfield Hall, bequeathed £2000 each to the London Hospital and the Essex and Colchester Hospital, £1000 each to the Charing-cross, the Royal Free, the City-road Consumption, and the East London Children's Hospitals. Miss Elizabeth Elmslie of Edinburgh bequeathed £10 each to the Royal Infirmary and the General Dispensary, Aberdeen. The Halifax Infirmary becomes entitled to £500, by the will of Mr. Farrar and to £50 by the will of Miss Sarah Farrar, sister of the above. Mr. J. St. G. Burke, Q.C., late of the Auberies, bequeathed £100 to the St. Leonards Hospital, Sudbury. The Consumption Hospital, Liverpool, has received £550 under the will of the late Mr. Philip John Ashton.

Reviews and Notices of Books.

The Quarterly Journal of Microscopical Science. Edited by Messrs. LANKESTER, BALFOUR, DYER, and KLEIN. No. LXXXII. April, 1881.

THIS number contains the following interesting memoirs: 1. The Minute Anatomy of the Branchiate Echinoderms, by P. H. Carpenter, M.A. 2. On Young Stages of Limnocodium and Geryonia, by Professor Lankester. 3. The Origin and Significance of the Metamorphosis of Actinotrocha, by Ed. B. Wilson. 4. The Minute Anatomy of the Organ of Jacobson in the Guinea-pig, by E. Klein. 5. Histological Notes, by E. Klein. 6. On the Development of certain Microscopic Organisms occurring in the Intestinal Canal, by D. Cunningham. 7. The Development of Starch Grains, by A. Schimper. 8. On the Cause of the Striation of Voluntary Muscular Tissue, by J. B. Haycraft. 9. On the Relation of Micro-organisms to Disease, by Joseph Lister. 10. Observations on the Appendages and on the Nervous System of Apus cancriformis, by Professor Ray Lankester.

Dr. Cunningham's paper is one of the most interesting of the above-named articles, and the conclusions at which he has arrived are: that peculiar parasitic forms may be specially associated with particular forms of disease without holding any causal relation to them; that the monadic, amœbal, and sporoid bodies so abundant in many choleraic excreta are all developmental forms of one species of parasite, which he proposes to call Protomyxomyces coprinarius. This parasite appears to be closely related to the organisms included within the Protist groups of Protomonadinæ and Myxomycetes, and in certain respects seems to represent a connecting link between them. It is not confined to choleraic or even to human excreta as a basis, and only attains its full development external to the bodies of the animals within which it occurs. Its immature forms occur parasitically as normal inmates of the digestive canal in certain of the lower animals. In the human subject, both in health and disease, they are very frequently present in varying numbers. During health their number and activity are limited, due to repressive influences exerted by the normal intestinal contents as a medium. Their excessive abundance in certain forms of disease is due to abnormal conditions of the intestinal contents permitting of the occurrence of processes of rapid multiplication. Normal human excreta do not form a medium in which any further development of the parasitic elements outside the host body can occur. On the contrary, the normal series of fermentative changes through which the excreta pass after exit from the body ensures the complete destruction of the parasitic elements. No such destructive effect, however, is exerted by the changes occurring during the decomposition of the excreta in certain lower animals, especially cows and horses, and here the parasitic elements in them escape from the body, undergo further processes of development resulting in the production of reproductive bodies, securing the continuance and diffusion of the species. Such excretal matters therefore serve as a constant source wherein parasitic elements may be transferred to the bodies of other animals. Human excreta, which have passed through the initial processes of decomposition, and which have thus become alkaline, allow of the continued existence and multiplication of elements of the parasite, which may then obtain access to them, and may thus serve as a second centre of propagation. The introduction of the reproductive elements of the parasite into the human body is mainly effected through the medium of the air. The introduction of the reproductive elements *per se* seems to be quite innocuous. The special association of the parasite with intestinal disorders appears to be dependent on the abnormal condition of the intestinal contents allowing of the rapid multiplication of reproductive elements which may obtain access to them. Mr. Haycraft's paper on the Cause of Striation of Voluntary Muscle is also an interesting one, and deserves study.

The Journal of Anatomy and Physiology. By Professors HUMPHRY, TURNER, MCKENDRICK, and CREIGHTON. Vol. XV. Part 3. London: Macmillan. 1881.

THE contents of this number are—1. The Bones, Articulations and Muscles of the Rudimentary Hind-limb of the Greenland Right Whale, by Dr. John Struthers. 2. The Stridulatory Apparatus of Callomystax gagata, by Mr. Alfred C. Haddon. 3. The Sternum as an index of sex and age, by Mr. Thomas Dwight. In this paper the author makes some important statements from a medico-legal point of view in correction of ordinary accepted dates. 4. Dr. J. M. Hobson on the Mechanism of Costal Respiration. 5. The Membrana propria of the Mammary Gland, by Dr. Mansel Moullin. 6. On Double and Treble Staining of Microscopic Specimens, by W. M. Stirling, M.D. 7. On the Comparative Anatomy of the Lymphatics of the Mammalian Urinary Bladder, by George Hoggan and Mrs. Hoggan. 8. A Dissection of a Case of Epispadias, by Dr. R. J. Anderson. 9. On the Morphology of the Muscles of the Tongue and Pharynx, by Dr. R. J. Anderson. 10. A Contribution to the Pathological Anatomy of Pneumonokoniosis, by Mr. Thomas Harris. 11. On the Histology of some of the rarer forms of Malignant Bone Tumours, by Mr. Robert Maguire. 12. On the Morbid Histology of the Liver in Acute Yellow Atrophy, by Julius Dreschfeld, M.D. 13. The Relationship between the Muscle and its Contraction, by Dr. Cash; and, lastly, some Anatomical Notelets, by Dr. J. Macdonald Brown.

Revue de Médecine. No. 4. April, 1881. *Revue de Chirurgie.* No. 4. April, 1881. Paris: Germer Baillière.

THESE journals are rich in matters of interest, and fully justify the separation of the *Revue Mensuelle* into its two components. The present number of the Medical Review opens with a paper upon Hepatic Sclerosis by M. Talamon. He deals with that form which is secondary to cardiac disease, and maintains that the induration of the liver is in great measure due to concomitant inflammatory changes in the arteries of the organ. He concurs with Wickham Legg and others in the observation that there is no production of connective tissue around the central vein of each lobule, the cirrhosis being in the portal areas, as in the alcoholic form, and points out that in some cases there supervenes a severe form of jaundice, owing to the destruction of the hepatic cells. The next paper is on Ephemeral Subcutaneous Nodules and Rheumatism, by MM. Troisier and Brocq. As we propose to deal with this elsewhere, it will suffice to say now that the authors draw attention to a comparatively novel matter, which we understand will form the subject of a communication to the forthcoming Congress by two English physicians. M. Barié contributes the second part of an extensive study on Rupture of the Cardiac Valves, and summarises many cases which are scattered through medical literature. A case of essential anæmia (fatal) with hæmorrhagic diathesis is related by M. Foucheraud from M. Lépine's clinique. The "Revue Critique" of this number is devoted to an analysis of the subject of Tendon-Reflex, by M. Ollive. The number concludes with brief abstracts of the proceedings of many medical societies, French and foreign.

In the Surgical Review one of the editors, M. Nicaise, describes a form of intestinal stricture following hernial strangulation, which was relieved by operation five years before the development of further symptoms. Enterotomy

was performed, but the patient succumbed, and the cause of the obstruction was found to be the existence of bands of adhesion between the contiguous portions of a loop of intestine, the result of a local peritonitis at the earlier date. M. Féré writes upon strangulated hernia in the infant, and the apoplexy of the testicle to which it may give rise. He enumerates at the close of his paper fifty-six cases of strangulated herniæ in children under two years of age. M. Delens contributes the concluding portion of a paper upon Sub-hyoidean Ranula. There is also an exhaustive review of Nephrectomy, by M. Lannois, based upon thirty-nine cases, most of which we believe have been summarised by Mr. Barker in his papers on the subject read at the Medico-Chirurgical Society. A tolerably full report of the proceedings of the Société de Chirurgie is also a feature of this number.

Brain. April, 1881.

THE current number is one of more than average interest. The opening article is by Dr. Bucknill, and is a lengthy but valuable discussion of the judicial opinions of the late Lord Chief Justice Cockburn on Lunacy. The differential diagnosis of the various forms of paralysis is sketched in a somewhat tabular article by Dr. Byrom Bramwell. Austin Flint, junior, considers in the next paper the Cause of the Movements of Ordinary Respiration, assigning to reflex action a smaller share in the process than some authorities are inclined to admit. Dr. Julius Althaus discusses some points in the Diagnosis and Treatment of Brain Disease, the chief therapeutical points being the wonderful effect of the constant current in some cases of organic disease. The explanation of some curious Illusions of Motion is the subject of a very interesting article by Dr. C. S. W. Cobbold, and Dr. Bevan Lewis continues his very important description of the methods of preparing, demonstrating, and examining cerebral tissue. Of the reviews, the most important is a very thorough analysis of Rosso on the Circulation of the Blood in the Human Brain by Dr. Rabagliati. A series of Clinical Cases by Drs. Warner, Atkins, Ashby, and Buzzard conclude the number.

New Inventions.

A NEW ŒSOPHAGOSCOPE.

THIS instrument consists of two parts—a stem and a skeleton tube. The stem is made up of a handle and a shank, between which there is a hinge. The skeleton tube is only formed when the instrument has been introduced into the gullet; before that it consists of two flattened wires placed anteriorly and posteriorly, connected above and below and at certain intervals between these points by rings. When the rings lie in the vertical position the wires are separated from each other only by the thickness of the rings; but when the latter are thrown into the horizontal position the two wires become separated, and with the rings constitute a kind of skeleton speculum. At the top of the back wire there is a slot, into which the stem of a laryngeal mirror is fitted. By the upper figure it will be seen that the handle and shank are almost in a line—a position which greatly facilitates the introduction of the instrument. When the "body" has been passed down the œsophagus, the operator, holding the handle in his hand, but leaving the index-finger free, presses with the latter on the upper part of the shank near the handle. The result of this is to turn the rings from the vertical to the horizontal position, and thus to open the speculum and expand the gullet. With a view of causing as little irritation as possible before withdrawing the instrument, the operator should close the speculum by pressing the under part of the shank (near the handle) with his thumb. Tubes from three to five inches in length can be bolted so securely to the end of the shank that they are as safe as if the whole instrument were made in one piece.

The upper drawing shows the instrument ready for introduction into the throat; the lower one, the same instrument *after* introduction.

This instrument has been manufactured by Messrs. Mayer and Meltzer, of Great Portland-street, under the direction of Dr. Morell Mackenzie, who has been using it for nearly a year.

UTERINE DILATOR.

AN instrument for dilating the cervix of the uterus has been sent to us by Messrs. Maw, Son, and Thompson, who state that they have constructed it according to suggestions and designs given by Dr. James, of Thurloe-square. The invention consists of a sound made of plated copper, and having the ordinary shape of a uterine sound; but the handle, which is fastened by a screw, can be readily unshipped and

replaced. The main feature of the instrument, however, is the employment of the stem as an axis, upon which slides a vulcanite tube equal in diameter to a No. 5 catheter. The tube is seven inches long, and can be forced onwards until it becomes arrested by the bulb that ends the curve of the sound. The tube may be withdrawn without moving the axis, and the next size tube may then be driven as far as the point of arrest. The tubes, of which there are eight, constitute a graduated series, from No. 5 to No. 12.

ABDOMINAL BELTS.

A SET of three abdominal belts is made by Messrs. Worth et Cie. for use under the following circumstances:—One is for support during pregnancy; one, which contains a metallic compression plate, is for use immediately after confinement; and the third for wear after the puerperal period. These belts are well made, and seem well adapted to fulfil the object for which they are intended.

MR. G. L. SENEY has given 200,000 dollars and a site for the erection of a cottage hospital in Brooklyn, U.S.A.

THE LANCET.

LONDON: SATURDAY, MAY 14, 1881.

IF it were not that we have in vaccination and revaccination practically an absolute protection against serious and fatal small-pox, the present aspect of affairs as to that disease in the metropolis might awaken the gravest anxiety. Even as it is, this aspect is not to be regarded without much misgiving. It discloses an amount of unprotectedness against the disease within the metropolitan area which we were largely unprepared for, and which proves that the negligence of revaccination in the metropolis is fully as great as, in fact greater than, that of primary vaccination, as shown by the official returns. And this, indeed, is the chief lesson to be learned from the persistent activity of small-pox in London, a lesson which goes to the root of the matter as regards the prevention of the disease, but which is in danger of being swallowed up in the present active discussion regarding the merely provisional procedure for checking the prevalence of the disease by the isolation of the sick in hospitals. Such isolation should be regarded as a necessary part of the preventive treatment of small-pox, so long as any appreciable portion of a population remains unprotected by efficient vaccination and revaccination; and under the circumstances of the metropolis, from the immense movement of population in it causing peculiar difficulties in tracing unvaccinated children, and the vast immigration of people of whose history in regard to vaccination it is practically impossible to keep account, there must be for long to come, it is to be feared, an unusually large proportion of the unprotected within its area. But in regarding hospital accommodation as an important aid in preventing the extension of the disease among those persons, we must not lose sight of the fact that our hope of stifling the disease, and preventing recurring epidemics, must rest in reality upon the success of our efforts in promoting vaccination and revaccination. And revaccination at the present moment particularly concerns us from this point of view. The true teaching of the present epidemic is to the effect that we want in London, and, in fact, in England generally, the practice of revaccination so extended as that it shall be as fully spread and as efficiently carried out as primary vaccination. As it is, we learn from the official vaccination returns that infants and young children are, thanks to the present generally effective arrangements for primary vaccination, being eliminated from the victims of small-pox; and we require such a development of revaccination among children above the age of puberty and persons of older age as is being carried out and is now being successfully effected as to vaccination among infants and young children. If the persistence of the epidemic of small-pox in the metropolis will turn the attention of the community more intently to this view of the subject, nothing but permanent good will come out of this temporary deadlock about hospital accommodation. The lesson as to revaccination has been dinned into the ears of the people at large and the local vaccination authorities persistently for the last ten years, but the ears have proved mainly deaf ones. Perhaps more heed will be given now when the community must provide for treating small-pox more largely in their households than hitherto, exposing the inmates and neighbours to tenfold danger of the loathsome contagion. How many persons have reflected that of the deaths from small-pox registered within the Bills of Mortality last week, half, with the exception of two, were registered in private houses? That is to say, that half the cases occurred and ran their course under circumstances of infinite danger to the other members of the family, and when no efficient control could be exercised over the diffusion of the contagion to other families. And this condition of things, owing to the failure of hospital accommodation, is being repeated over the length and breadth of London, in its wealthiest as its poorest quarters. Yet we possess an efficient remedy against small-pox in general revaccination, a remedy not only easily obtained, but involving little trouble, and actually provided for all who care to have recourse to it at the public expense! Is it not possible to bring this remedy more fully into play? In this respect, although we must condemn the shortsightedness of the Local Government Board in its arrangements as to the provision of animal lymph so far as these would promote more general revaccination, we must admit that the Board has spared no effort to arouse the local vaccination authorities of the metropolis and the inhabitants at large to a just sense of the importance of revaccination—and this, we are glad to believe, not without some considerable success. Revaccination has probably never been so largely carried out in the metropolis as it is now, under the combined terror of the epidemic and the monitions of the Local Government Board. But are we not in a position to go further? The key to the success of our primary vaccination is compulsion. Is it so far out of reach of existing statecraft that compulsion in some form could not be brought to bear on revaccination? In view of the incalculable benefits which have been obtained in regard to small-pox among bodies of men who are indirectly compelled to submit to revaccination, and of which the letter-carriers of the London postal district form, as Dr. WALLER LEWIS has recently told us, so remarkable an example, surely it ought to be possible to devise some legislative means by which the population at large, above puberty, might obtain the same immunity, and the metropolis and kingdom generally freed from these recurrent alarms of small-pox. At any rate, over and above the question of small-pox hospital accommodation for the metropolis now awaiting solution, let it be remembered that we have immediately at hand a more certain and much simpler protection against small-pox in efficiency of vaccination and revaccination; and it is to this remedy, and not to hospital accommodation and isolation of cases therein, we have to look for the ultimate control of this formidable disease.

IT is now ten years since the researches of FRITSCH and HITZIG, followed a few years later by those of FERRIER, laid the foundations of the modern doctrine of Cerebral Localisation. We term it modern because, though it had been previously mooted on various grounds, and to a certain extent empirically established by BROCA, it is only with

the above-mentioned researches that the stage of what professes to be exact scientific method and verification commenced. The question thus raised has excited the active interest of physiologists, psychologists, and pathologists, and a vast amount of literature in the form of special treatises or contributions scattered among the scientific journals of every country has grown up, dealing with the subject in its various aspects. The present seems a convenient time for taking a brief survey of the results achieved, more particularly in reference to clinical medicine and pathology, without in any way attempting to pre-determine the conclusions to which the controversy still proceeding may be carried.

The starting-point of the doctrine and all its subsequent developments was the discovery of the fact that application of the stimulus of the galvanic or induced current to certain regions of the cortex cerebri excited movements on the opposite side of the body—movements which varied according to the position of the electrodes, and which were held to be definite, uniform, and capable of accurate prediction. In this way areas or "centres" were defined and marked off, and their homologues established in the brains of different animals. In the dog these areas were grouped in the neighbourhood of the crucial sulcus; and in the monkey, in the convolutions bounding the fissure of Rolando.

The facts described by HITZIG and FERRIER were confirmed by subsequent individual investigators and by joint committees, and have since been widely accepted. If nothing else has been established beyond these data, altogether apart from their actual significance, an important light has been thrown on the causation and diagnosis of certain affections well known to clinical observers. The occurrence of spasms or convulsive movements, limited to one side of the face or to one limb, or beginning in a limb, and spreading in a definite manner to the whole of one side, had been carefully studied by HUGHLINGS JACKSON, and connected with "discharging lesions," or irritation of motor convolutions functionally related to the corpus striatum. The researches of HITZIG and FERRIER, and the subsequent investigations of CARVILLE and DURET, LUCIANI and TAMBURINI, and others, both as to the effects of localised irritation of the cortex and the experimental induction of epileptiform convulsions in the lower animals, have afforded evidence in favour of the accuracy of HUGHLINGS JACKSON'S hypothesis. The numerous instances lesions of successful diagnosis of the seat of discharging founded on the observations of HUGHLINGS JACKSON, and the facts of experiment on the brain of the monkey in particular, have led to the recognition of "Jacksonian epilepsy," and its regional diagnosis, as a matter of ordinary instruction in clinical medicine. These results have also exercised a considerable influence on the current views as to the pathology of epilepsy in general, and in many cases at least the phenomena are considered more in accordance with primary irritation of the cortex cerebri than secondary to changes in the medulla oblongata. A new departure has also been attempted in the direction of the prehistoric practice of trephining; and elaborate investigations of cranio-cerebral topography have been made by BROCA, TURNER, FÉRÉ, LUCAS-CHAMPIONNIÈRE, POZZI, AMIDON, &c. As to the ultimate practical issue of these inquiries, it would be at present premature to express an opinion. Even the near future is obscured by doubt. The interpretation of the movements resulting from electrical irritation applied to the cortex cerebri has naturally given rise to considerable diversity of opinion. While the discoverers of the phenomena referred them to irritation of the grey matter of the hemispheres, others looked upon them merely as the results of physical conduction to underlying motor tracts; and the fact that similar movements could be produced by electrical irritation after the grey matter was removed, was considered by BURDON-SANDERSON, G. H. LEWES, &c., to place this beyond all question. On this point the researches of ALBERTONI and MICHIELI, and those of FRANCK and PITRES have an important bearing. These investigators found that though electrical irritation of the medullary fibres subjacent to the cortical grey matter at first excited movements similar to those resulting from the application of the electrodes to the grey matter itself, yet all reaction ceased after from four to five days, a period coincident with the degeneration and loss of excitability which occur in motor nerves after separation from their centres; whence it is argued that the medullary fibres between the cortical centres and the lower motor nuclei bear the same relation to the nerve-cells of the cortex as the spinal motor nerves to the multipolar cells of the anterior cornua. The investigations of VULPIAN and others on the lower animals, and those of CHARCOT and his pupils in cases of lesion of the so-called motor area, have shown that descending degeneration occurs in the pyramidal strands of the spinal cord as the direct result of such lesions; and working both from the standpoint of secondary degeneration and from that of the fœtal development of the spinal tracts and their cerebral relations, FLECHSIG, in his elaborate work on the subject, traces a direct connexion between the grey matter of the convolutions bounding the fissure of Rolando (the motor area) and the anterior cornua of the spinal cord.

The histological researches of BETZ and MIERZEJEWSKY, and those of BEVAN LEWIS, also show that in this area there is a characteristic lamination and grouping of the ganglionic cells not found in other regions of the cortex. It has also been experimentally proved that destruction of the cortical centres in the lower animals causes, for the time at least, disorders of mobility in the opposite limbs—effects which the localisers state may be limited to a limb, or certain movements of a limb only, according to the position of the lesion. But as to the exact nature of these disorders, and their duration, the most diverse views have been expressed, and the controversy still continues. HITZIG, NOTHNAGEL, from an experimental point of view, and BASTIAN from a theoretical standpoint, regard the affection as one of muscular sense, or kinæsthesis (BASTIAN); SCHIFF, MUNK, and TRIPIER hold that there is a loss of tactile sensibility, while FERRIER holds that motility only is affected. FERRIER accounts for the amount and duration of the motor paralysis in different animals by the relative degree of organisation of the motor activities in the centres situated below the cortex proper. In four-footed animals the independent organisation in the lower centres is much greater than in the monkey and man, and hence in time the paralysis or paresis at first apparent on destruction of the cortical centres disappears; whereas in the monkey

and man, whose movements are more intimately dependent on the cortex, the paralysis is permanent. Others account for the recovery by a hypothesis of functional substitution by other portions of the cortex. GOLTZ opposes localisation in general, and considers the hypothesis of functional substitution invoked by some localisers as inconsistent with their doctrine. He is of opinion that every portion of the cortex is in relation more or less with every function exercised by the cerebral hemispheres, and attributes the temporary disturbances which ensue on cortical lesions in the dog to inhibition, for the time being, of the uninjured parts. He thus in a measure supports the doctrine of FLOURENS, and the pathological views of BROWN-SÉQUARD, as to the *modus operandi* of cerebral lesions. GOLTZ does not obtain limited paralysis either of motion or sensation from cortical lesions, but a combination of motor and sensory paralysis, genera and special, the degree depending not so much on the position as on the extent of the lesion established. But as GOLTZ has not restricted his lesions in the manner indicated by the localisers, his experiments have been objected to by them as irrelevant to the question. Nevertheless, GOLTZ has succeeded in showing that dogs retain extraordinary capabilities even after most extensive bilateral destruction of their cerebral hemispheres, if time be given for the subsidence of the primary disturbance caused by the operations. Though profoundly demented they yet exhibit obscure signs of sensation, general and special, and the power of directing their movements in accordance with them; facts which lead him and others to suppose that every portion of the cortex participates in feeling, will, &c., and is independently related to all the voluntary muscles and sensory organs of the body.

Leaving these physiological controversies and turning to the facts of clinical medicine and pathology, we find that within the last ten years numerous observations have been published in reference to the effects of cerebral lesions; cases observed and described with a due regard to the accurate topographical situation of the lesions which the localisers have shown to be of such essential importance, and the want of which has vitiated the great majority of former clinical records. In the works of CHARCOT and PITRES, FERRIER, GRASSET, DE BOYER, LANDOUZY, NOTHNAGEL, LUCIANI and TAMBURINI, MARAGLIANO, and in various journals at home and abroad, there are to be found records of several hundred cases recently observed, destructive lesions of the so-called motor area with motor paralysis of the opposite side, which may be general, or limited to the leg, the arm and leg, the arm, the face, or arm and face, according to the extent and position of the lesion, the results of clinical observation apparently harmonising to a considerable extent with FERRIER'S localisation of the motor centres in the monkey. The intensity of the paralysis varies with the completeness of the destructive lesion, but the cases are numerous of incurable paralysis, followed by descending degeneration of the pyramidal tracts and the development of late rigidity in the paralysed limbs, in connexion with lesions purely cortical.

It is claimed by the localisers that destructive lesions of the motor area invariably cause motor paralysis, but a few cases have been put on record by JACCOUD, MANCINI, CUNNINGHAM, and MAGNAN in favour of the occurrence of partial lesions in the motor area without any evident symptoms during life. There does not, it is said, appear to be any unequivocal case on record of general destructive lesion of the so-called motor area without motor paralysis.

On the other hand, lesions outside the motor area, in the prefrontal, occipital, and temporo-sphenoidal lobes are alleged to occur without motor paralysis or secondary degeneration of the pyramidal tracts. It is with respect to the effects of lesions of this so-called latent area that attention has of late been more particularly engaged. FERRIER drew a distinction between the significance of the movements resulting from electrical irritation of the anterior and posterior regions of the hemispheres, holding that the latter were indices of sensation. Following up these indications by the method of circumscribed lesions, he mapped out special areas for sight, hearing, tactile sensibility, smell, and taste. Owing to the commonly negative results of disease in these regions, and the paucity or indirectness of positive confirmatory facts, this part of FERRIER'S work has been overshadowed by the localisation of motor centres. But the question has of late been assuming greater prominence. Though the accuracy of FERRIER'S sensory localisation has been severely criticised by MUNK, yet the fact of a localisation of areas of special sense has been admitted by him and by LUCIANI and TAMBURINI; and certain modifications as regards the extent and relations of the visual centres recently introduced by him and his colleague Professor GERALD YEO bring the results of physiological experiment into greater harmony with each other. These experiments point to the region of the occipital lobe and angular gyrus as specially related to vision. Cases have been recorded of ocular spectra in connexion with irritative lesions in this region, and not a few cases are also on record which seem to point to the connexion of hemiopia with lesions in the medullary substance of this portion of the hemisphere. As regards hearing, FERRIER'S localisation of an auditory centre has been confirmed by MUNK, and by LUCIANI and TAMBURINI. Differences, however, exist as to the exact position of the centre in question. It is asserted that there are no cases on record of loss of hearing from cortical lesion, but facts have been published in favour of the association of "word deafness" with lesions of the superior temporo-sphenoidal convolution of the left hemisphere. The localisation of special centres of tactile sensibility, smell, and taste, is maintained almost exclusively on physiological data, the clinical facts at present on record failing to establish any direct relationship between cortical lesions and abolition or impairment of these faculties. It seems at first sight not a little remarkable that so much difference of opinion still exists among physiologists not merely on matters of detail, but on the main question of localisation in general. The differences, however, appear to be not so much on matters of fact as on the mode of interpretation; and when it is considered that the cerebral organisation may differ in different animals, and that in them all that concerns subjective relations is a matter of pure inference, the facts may reasonably appear differently to different investigators. On the other hand, in the experiments of disease in man, the testimony of the patient renders the determination of questions as to subjectivity more simple. Hence, viewed merely

in their physiological relations, the facts of disease in man must form an indispensable factor in all considerations relative to cerebral functions and their localisation. Many problems still remain unsolved, and much is yet to be made out of even the most common forms of cerebral disease.

Careful clinical observation will prove of incalculable service towards the satisfactory elucidation of one of the most important questions in medical science.

THE return of Dr. DANFORD THOMAS by a majority of votes, numbering more than five to one of those polled for his opponent Mr. BOLTON, is satisfactory. Making the largest allowance for the circumstance that the successful candidate was doubly qualified, being a medical man and a member of one of the Inns of Court, it is nevertheless evident that the constituency has again declared its allegiance to the principle that medical knowledge is pre-eminently necessary for an efficient discharge of the duties devolving on an official whose express business it is to investigate the causes of death. This principle is so clearly self-evident that there should never be the smallest doubt as to the result of a contest in any district. The claim urged on behalf of lawyers, as such, is manifestly of the weakest. The conditions under which inquiries of the nature entrusted to a Coroner must always be conducted are such as to prevent the functions of his office being adequately performed by any gentleman without medical knowledge, however able and honest he may be. If the legal profession should retort that ignorance of law is a disqualification, we may reply that it is always easy for a medical man to acquire a sufficient acquaintance with the law. His education specially qualifies him for such a course of study; and we have no objection to concede that it is expedient that any man contemplating an attempt to obtain the post of Coroner should thus qualify himself. On the other hand, no mere lawyer, however well educated and perfectly trained in his profession, can possibly obtain a useful—or we will go farther, and say more than a dangerous—knowledge of medicine without passing through the full curriculum necessary for a diploma. It would be idle to ask lawyers to qualify as doctors, but it is neither vain nor unreasonable to demand that doctors becoming candidates for this office shall possess an adequate knowledge of the law and legal methods.

We have said that the Coroner's Court is hampered by the conditions under which its functions are exercised. This must be obvious. There can never be any close approach to a strictly judicial procedure while Coroner and jury are required to carry out a personal investigation. That they are required to do this is evidenced by the rule which enjoins an actual inspection of the body of the deceased, and by the laxity of procedure which enables a juryman to lay aside his character as a judge, and to become a witness at any stage of the investigation. These may seem small matters, but they show the nature of the so-called Court. It is, in fact, nothing more than a somewhat ungainly and inconvenient agency for exploring the mystery of an uncertified death. All attempts to magnify the office beyond its legitimate proportions must tend to discredit it. The Coroner is neither an officer of the public peace, properly so called, nor is he a supplementary registrar under the superintendence of the Registrar-General. It is not legitimately his business to allocate the crime of murder or manslaughter, nor is he required to make the verdict of his jury a scientific contribution to the statistical roll kept at Somerset House. If he *can*, without causing needless expense to the ratepayers, or straining his powers, point to the perpetrator of a capital or grave offence against the person, and so help to hand the offender over to justice, he is justified in so doing. Again, if he can so precisely specify the cause of death as to make his return available for—what are believed to be, useful—statistical purposes, he may perform the collateral service; but these offices, which are too often spoken and thought of as parts of the Coroner's "duty," are essentially outside it and contingent. The sole business of this official is to ascertain whether death has occurred "by the visitation of God" (to revive an old but *legally* sufficient formula), or whether it has been caused by some non-natural act or agency. For the necessary search in an obscure case medical knowledge is undoubtedly indispensable. The Court is not constituted, and can never be made competent, to deal with the evidence of experts as a superior Court is *supposed* to deal with such testimony. The inability of non-medical judges, of any and every rank, to weigh medical evidence is apparent, and it constitutes a grotesque blot on our judicial system; but the impotency of a non-medical Coroner is a serio-comic absurdity, in which even the loafers of the district pot-houses find occasion for merriment. Whatever reforms await the office and Court of the Coroner—and both are much in need of the axe or the pruning-knife,—it must be evident that to find the "cause of death" it is indispensable to employ an official who has a professional acquaintance with the scientific subjects lying within the scope of his inquiry, and who will know how to direct the search in proper quarters. The essential and all-important difference between the Coroner's Court and any other Court known to our system, is that while all other tribunals are charged to deal only with the evidence brought before them, and not to inquire beyond the limits of the purview, the Coroner and his Court are charged to investigate the unexplored mysteries of a case, and not only by his officer, but in person and with the aid of his jury, to ferret out the truth with regard to the death of the person whose remains he, so to say, takes into his custody. There is nothing like this elsewhere in our judicial system. The Coroner, or Crowner, is the direct representative of the Crown for purposes which have in recent times been restricted to those relating to the death of the QUEEN'S subjects: as such he must be a person qualified by special knowledge to search among the mysteries of death; or, in other words, he must be a medical man.

It may seem ungrateful, after the persistent adherence of the voters of Middlesex to the principle of selection inaugurated when the late Mr. WAKLEY was returned as the first Medical Coroner for the County, to express the hope that this may be the last occasion on which the appointment will be left to the freeholders; but the constituency, as at present existing, must admit that it is an anomaly to give a vote to the smallest *freeholder* — for example, even the owner of a grave—while the vote is denied to the largest *leaseholder*. In the old days, when the "Crowner" was chiefly, or at least equally with his other functions, the local claimant of treasure trove and property lost or disentailed, for the

Crown, it was natural that the electors should be freeholders of the district. They were empowered to select the person in order that they might guard their own rights by presenting an impartial man to the office, and he was himself required to be a freeholder, to the extent of a knight's fee, in order to afford a sufficient guarantee for his integrity and to make him representative of that class whose rights the Crown might possibly invade. Now, however, that the Coroner is no longer actively employed in this assertion of the rights of the Crown, but has almost exclusively to search out the causes of death, there is no sufficient reason why he should not be appointed to this office by the Chief Coroner, the Lord Chief Justice of England, or the Secretary of State for Home Affairs. In any case there is no reason why the electors should not be leaseholders and occupiers, as well as freeholders. As it is, the election of Coroner is one of the most antiquated of formalities, and entails costs and an amount of trouble on a candidate which are out of all proportion to the emoluments of the office he seeks. In the case of a purely vexatious contest the burden is intolerable. Before another vacancy occurs we trust the whole matter may receive the consideration of Parliament, and that a long-delayed, but really necessary, measure of reform may be introduced and—which is much more—carried into effect.

THE terms of the Royal Commission on the Medical Acts, published in THE LANCET of last week, are so well chosen and show such a good grip of the points to be investigated, that we feel it to be unnecessary to go into such detail in exposition of these matters as otherwise we should have felt. The Commission, by way of preamble, says, "It is of importance to all classes of our subjects that the conditions under which persons are permitted to represent themselves as qualified medical practitioners should be such as to afford the best attainable security for their skill and knowledge in medicine and surgery." It proceeds to refer to divers representations in Parliament, and otherwise, of the unsatisfactory state of such matters; says that Her Majesty is of opinion that further inquiries should be made into the grant of medical degrees, memberships, fellowships, licences, and other diplomas, by universities, colleges, and bodies in the United Kingdom; into the courses of education and examination, payments, and other conditions required as a preliminary to such grant, and into the skill and knowledge which such degrees, fellowships, and licences or diplomas represent; into the conditions of registration, of removal from the Register, the position of registered persons abroad, and of practitioners here who have been educated and examined abroad; into the constitution, functions, powers, and procedure of the Medical Council; its relation to the various bodies and to the medical profession; and generally into the results of the Medical Act of 1858, and the various Acts amending it. This is a large and comprehensive Commission, and if it be executed with care can scarcely fail to issue in a report that will supply a basis for legislation which will place our medical institutions on a more satisfactory footing than at present.

The Royal Commissioners will not proceed far without finding out some curious facts. If they are of an antiquarian turn of mind, they will find much in the history of the medical bodies to engage their interest, especially the remote origin of many of the bodies, and the singular functions and crafts with which some of them were identified. Instead of wondering that a number of "trusty and well-beloved" subjects of Her Majesty have been selected in an advanced stage of the nineteenth century to adjust these institutions to the present time, they will wonder that such an adjustment had not been made before, and that the work of the medical reformers in 1858 was so incomplete. Most of the nineteen bodies can boast of centuries of existence, and their charters take us back to the time when surgery was represented by barbers. Before the incorporation of the Royal College of Surgeons of Ireland in 1784 there existed a guild of Barber Surgeons in Dublin whose charter dated as early as 1446. The Royal College of Surgeons of Edinburgh, on July 1st, 1505, had a "Seill of cause granted by the Town Counsell of Edinburgh to the crafte of Surgerie and Barbours." For many years this was the only body in Scotland licensed to distil spirits. The present charter of the Royal College of Surgeons of England sets out with reciting the letters patent granted by King EDWARD IV. at the supplication of the freemen of the Mystery of Barbers of the City of London using the mystery or faculty of surgery.

The histories show not only the age of many of the bodies which have to be dealt with, but the curious limitations of their functions. Such bodies as the above dealt only with the surgical side of disease, and this in a very primitive way. Though the notions of the time gave much importance to surgical methods of relief—bleeding, cupping, tooth-drawing, &c.,—there were other functions to be discharged which called for bodies which would license persons capable of rendering other services: making and compounding medicines, or the still higher work of prescribing medicines to be dispensed by the barber surgeons or the apothecaries. So arose the Companies of Apothecaries, essentially trading companies in character, and the medical degree granting function of the universities, which in England the Commissioners will find still in a very imperfect state, though very great advance has been made of late years at Cambridge, and even at Oxford.

Successive charters and successive Acts of Parliament, notably the Act of 1858, have greatly elevated the functions and enlarged the jurisdiction of the nineteen bodies, which, the Commissioners will find, license men to practise, granting qualifications of the most variable value as tests of knowledge, either general or professional. There is, however, this remarkable survival of the dark ages in all, or in all but one, of the qualifications granted—viz., they are all one-sided: a qualification in medicine only, or in surgery only, or in midwifery only; not—except one perhaps, the licence of the Royal College of Physicians of London—in all the three branches of the one great art of medicine. This is an absurdity which cannot survive the present inquiry. It is simply monstrous that a complete qualification cannot be obtained from one examining body, be it in England, Ireland, or Scotland. Nothing but the trade instinct, which is found even in professional corporations, could have preserved such a one-sided arrangement, with its two sets of fees.

The Act of 1858 removed one curious limitation which it is important at this crisis to recall—the limitation of the jurisdiction of the respective bodies. Prior to that Act

diploma of the English Colleges licensed its holders to practise only in England. The licensing virtue of the Scotch qualifications was more restricted still. Before 1858 the Royal College of Physicians of Edinburgh had legally no jurisdiction beyond the walls of the old town of Edinburgh. The jurisdiction of the Royal College of Surgeons of Edinburgh extended to eight specified counties—the three Lothians, Berwickshire, Peeblesshire, Selkirk, Roxburgh, and Fife. That of the Faculty of Physicians and Surgeons extended over four counties—Lanarkshire, Renfrewshire, Ayr, and Dumbarton. Even graduates of the ancient Universities of Scotland had no legal right to practise, save only by the courtesy of the Scotch Corporations. Such was the almost parochial restriction of the chief Scotch Corporations before the Act of 1858, which gave to their qualifications henceforth an Imperial value. Unfortunately the legislation of 1858, while properly abolishing all territorial limitations and distinctions of qualification, provided no means for adequately securing an approximation to equality in the examinations to be passed, only vesting the duty of superintendence in a Medical Council, without powers, and made up predominantly of the nineteen bodies to which the Act gave Imperial jurisdiction, without taking any account of their parochial proclivities. Hence the necessity for fresh and sound legislation. In another article we shall try to show the working of the General Medical Council since its creation in 1858.

Annotations.

"Ne quid nimis."

MEDICAL ASPECTS OF TEMPERANCE.

A MEDICAL conference has been held at Bristol under the auspices of the Bristol United Temperance Mission. A very careful paper, conceived in a scientific spirit, was read by E. M. Skerritt, M.D. Lond. Dr. Skerritt concluded with the following propositions:—1. That the exact physiological value of alcohol as a food, and its destiny in the human economy, are matters of doubt. 2. That experience teaches that total abstinence favours the enjoyment of the highest vigour of mind and body. 3. That it cannot be demonstrated that alcohol in moderation is necessarily injurious. 4. That the sum total of any virtue that alcohol may possess as an article of diet is utterly insufficient when compared with the sum total of evil that it produces in the community. Most medical men will subscribe largely to these propositions. Dr. Thompson, of the Bristol Lunatic Asylum, regretted the presence of the public, which he thought hindered free discussion of the question in its medical and scientific bearings. We think that some sides of this question are not yet fit for discussion in a mixed assembly. He objected, too, to the common and certainly rather vague statements about alcohol as a cause of insanity—an objection illustrated by the remarks of the speakers at the conference. Dr. Thompson thought not more than 3 per cent. of cases due to drink; the superintendent of the Colney Hatch Asylum said drink was the cause, "directly or indirectly," of 40 per cent. of cases, and that the Commissioners in Lunacy placed the cases at 14 per cent. There is nothing scientific in such data, and, therefore, nothing true. Dr. Richardson, in an evening address, controverted the opinion that the disuse of alcohol leads to the use of other narcotics. He had taken notes of thirty-three opium-eaters, all of whom used alcohol. He also refuted the notion that teetotal children were pale and unhealthy, and that teetotalers consumed more food than others. There is certainly a most extensive agreement in the medical world against the use of alcohol in any but the most moderate quantities, and to the effect that it should be taken only in connexion with food and in diluted forms. Those who take raw spirits or strong wines, at odd times and apart from food, must be ignorant indeed of the nature of the human body and of the laws of health. The power of resisting its bad effects varies, for unknown reasons, in different constitutions. The case of a man, aged eighty-four, is mentioned by Anstie, who lived for twenty years on a bottle of gin and one small finger-length of toasted bread per day. We have known such instances; but the assumption by any particular person that he had such a constitution as this implies would be a presumption that would probably in the great majority of cases be soon punished by fatal disease.

THE MICRO-ORGANISMS OF TUBERCULOSIS.

ACCORDING to some recent experiments by Deutschmann, the conclusions of Klebs and Schüller, that the active agent in the infection of tuberculosis is a micrococcal organism, cannot be accepted without further investigation. In the experiments the production of tubercles of the iris was taken as the test of the activity of the virus. Tuberculous pus from the human subject, if allowed to stand for two or three days in a perfectly clean vessel closed with cotton-wool, separates into two layers; the upper clear and yellowish in colour, and the lower composed of thick pus. The former is found on microscopical examination to be completely free from pus cells, but it contains a large quantity of very small bodies in vigorous movement, which correspond exactly with the micrococci described by Klebs and Schüller as characteristic of tuberculosis, and which Deutschmann has also found constantly in tuberculous material. He injected this serum, containing the micrococci, into the anterior chamber of the eyes of guinea-pigs. The pus from which the serum was obtained came from three different individuals. The result was that in every case the injection of the serum was without effect, while that of the lower layer invariably caused tuberculosis of the iris, after the lapse of the usual period of incubation. This result, although unexpected, was remarkably constant. Even when considerable quantities of the serum were injected, it never caused tuberculosis. The fluid from the anterior chamber of the eyes, in which tubercle had been thus produced, was injected into the eyes of other rabbits, but without result, although the liquid contained pus corpuscles and the micrococci which are supposed to constitute the *materies morbi*. If, however, the liquid was taken at a late stage, when, in addition to the pus and micrococci, it contained the products of degeneration of the tubercular formations on the iris, tubercles always resulted from the inoculation. Some liquid from the anterior chamber of a child suffering from tubercles of the iris was also injected into the eye of a rabbit, but without result, although it was found to contain numerous mobile micrococci. These results, Deutschmann concludes, can only be explained on three hypotheses: (1) that micrococci have nothing to do with the tubercular infection, or with the tuberculous virus; (2) the micrococci serve only as the vehicles of the tubercular infection when they can germinate in a suitable soil, such as is furnished by the lower layer of the tubercular pus; and (3) the specific organisms were placed in such unfavourable conditions that they had no pathogenetic action. It is conceivable, for instance, that the micro-organisms were so rapidly absorbed from the anterior chamber, and so rapidly rendered harmless in the blood, that they had no effect, whereas the slower absorption of the lower pus layer gave them time to multiply in it.

"THOUGHT-READING."

THE demonstration given by Mr. Irving Bishop, before a large and distinguished assembly of literary and scientific men, including some of the leading members of our profession, was in some respects disappointing. Perhaps the rather striking title of "thought-reading," and the *imprimatur* given to Mr. Bishop's powers by Dr. Carpenter and Professor Huxley, raised expectation higher than was warrantable. At the same time there can be no question that so far as Mr. Bishop is concerned, the demonstration was perfectly genuine, and free from any suspicion of trickery. Amongst those present were the Right Hon. Lyon Playfair, M.P., Mr. Francis Galton, Professor Croom Robertson, Dr. Brydges, Mr. Moncure Conway, Rev. Llewelyn Davies, Professor Burdon Sanderson, Mr. Romanes, Dr. Wilks, Dr. Andrew Clark, Dr. Hack Tuke, Dr. Bastian, Dr. Pye-Smith, Dr. Buzzard, Dr. Whipham, Dr. Coupland, Mr. E. Hart, Professor Lankester, Dr. Donkin, Dr. Curnow, and Mr. Spencer Wells. It is hardly necessary to describe in detail the various tests that were applied to Mr. Bishop; suffice it to say that they were limited to three kinds. In the first, he undertook to find an object placed in a part of the room during his absence, by requesting the gentleman placing it to keep a distinct image of the place in his mind, whilst Mr. Bishop, who was brought into the room blindfolded, kept the back of the left hand of the gentleman who had concealed the article pressed against his own forehead. He travelled round the room in this fashion until he came to the place, when he stopped, and soon lighted on it exactly. This experiment was repeated two or three times, Mr. Moncure Conway, Dr. Lyon Playfair, and Professor Croom Robertson being the subjects of the experiments. The condition for success was that the "thinker" should be all the time forming in his mind an exact and vivid picture of the place where the object was. Mr. Bishop, who is a slightly-built, pale young man, of neurotic temperament, always became apparently much exhausted by the process, no such visible effect being produced upon the one whose "thoughts" were being filched. The first two experiments were perfectly successful. In the one Mr. Moncure Conway, in the other Dr. Lyon Playfair, were those upon whom they were tried. A third and fourth experiment of the same nature, in which Professor Croom Robertson was the subject, failed; and the cause of the failure was interesting. Professor Robertson had placed the article in the hand of a gentleman who had subsequently left the spot where he was seated when he received the article. Mr. Bishop, after the necessary application of Professor Robertson's hand to his forehead, travelled all over the room without coming to a standstill, and apparently at a loss to indicate the place. At last Professor Robertson explained what had happened. In another experiment with Professor Robertson, Mr. Bishop soon correctly lighted on the place where the object had been first concealed, but could not find its final resting-place, although he hovered over the spot. Of the second variety of experiments, one was successful, the other unsuccessful. Professor Ray Lankester had to form a vivid mental picture of a pain, from which he said he was at that moment suffering, and Mr. Bishop, taking his left hand, and pressing it against his forehead, soon hit upon the precise spot at which the Professor had an aching tooth. At a later period of the evening the same experiment was repeated with Dr. Pye-Smith, who had a pain in the hand, but without success. In the third variety of experiments, in which Mr. Bishop pointed out letters in the word thought of by the individual whose hand he held as above, only one was successful. Dr. Lyon Playfair was the subject again; but the experiment failed twice with Dr. Bastian, Professor Robertson, and Mr. Brooke. In all this Mr. Bishop was perfectly frank and open; he reiterated more than once that he could offer no explanation of the failures any more than of the successes; and, for our own part, we are neither surprised at the failures, nor consider that they tell against the genuine character of the performance. What is instructive, however, is this, that those gentlemen with whom Mr. Bishop succeeded were possibly more nervously constituted than those with whom he failed; so that unconsciously they told by the involuntary contraction of their muscles what was passing in their minds. Mr. Bishop claims to have discovered a new fact in science. He has no part with the Spiritualists, whose manifestations he asserts he can repeat when he has seen them. So far as the exhibition on Monday evening went, he failed to satisfy us that there is in him any special faculty for discerning mental operations; for all the experiments, it must be remembered, were done through the contact of the hand of the subject with the forehead of Mr. Bishop, so that any slight tremor or involuntary muscular movement would be at once perceived by him. It is conceivable that in some individuals the imaging in their minds of the precise spot of a pain &c. would cause an involuntary and unconscious contraction of their muscles when this spot was reached; but it is only just to Mr. Bishop to admit that even this interpretation is not wholly satisfactory. Mr. Bishop is not a clever trickster, who wishes to practise on the credulity, or defeat the scepticism, of scientific men; but he is likely to be rather over-credulous himself upon the subject with which he is dealing. We imagine there must have been some feeling of disappointment at the result of the séance among those present: they had come to see something mysterious and inexplicable; they departed after witnessing a few performances, which can be explained—whether correctly or not—upon a simpler hypothesis than that put forward in the phrase "thought-reading." Now that the real meaning of mesmerism, stripped of all the delusions and trickery which so embarrassed it, has been revealed by the strictly physiological study of hypnotism, we are bound to look for simple physiological explanations for such "powers" as those originally claimed for Mr. Bishop; and it does not detract from the interest, although it may rob them of the mystery, attaching to such manifestations, to regard them solely in that light.

COVENT GARDEN MARKET.

THE inconveniences resulting from the overcrowded and dirty condition of Covent Garden Market and its approaches are well known to the general public who have occasion to visit it, but only those who live in the immediate neighbourhood can form an adequate conception of the filth and smells and the general unsavouriness of the place and its surroundings. A correspondent writing to us on the subject complains that a few days since a cart loaded with manure from the purlieus of the market upset in the street and discharged the whole of its contents into the area of his next door neighbour. Unpleasant as this catastrophe undoubtedly was, it would have called for no comment on our part had not our correspondent informed us that the cart in question was not a muck cart proper, but a market garden waggon used for bringing up cabbage and green vegetables from the country, and was taking back a return load of manure. The practice of thus conveying fresh vegetables and manure alternately in the same cart is as disgusting as it is dangerous. There can be no doubt that a considerable amount of the filth encrusted on the interior of these carts gets rubbed off and injures the vegetables by depriving them of their freshness and natural flavour, if it does not actually impart to them a *soupçon* of stable and street droppings. The attention of the sanitary authorities ought to be called to this state of things, and a reform

effected in this as well as other details concerning the management of the market generally. It is well known that emanations from decomposing animal and vegetable matter are the inciting, if not the efficient, causes of septicæmia and blood-poisoning, the bane and peril of surgical practice. Nevertheless, we hear with amazement that it is seriously proposed to establish a special hospital for "stone" cases in close proximity to this hot-bed of disease. Lithotomy, lithotrity, and the whole series of operations for the treatment of stone are, *par excellence*, the surgical procedures which are exposed to the gravest risks, and require to be carried out with the most elaborate precautions to secure a pure atmosphere and innocuous surroundings. Special hospitals are bad anywhere and everywhere, but if it were desired to name the worst possible site for an institution of that class, it would be difficult to select one more insalubrious than the vicinity of Covent-garden; not to mention the fact that this neighbourhood is one of the noisiest in London, sleep at night being practically impossible. Who can be the responsible promoters of this new venture?

THE ROYAL PORTSMOUTH, PORTSEA, AND GOSPORT HOSPITAL.

PROFESSOR DE CHAUMONT has presented a report to the Special Committee of the Royal Portsmouth, Portsea, and Gosport Hospital, on the sanitary condition of the building, which shows it in a light even worse than that exhibited by Colonel Percy Smith, R.E., in the report by that gentleman we referred to a short time ago. According to Professor de Chaumont, the state of the hospital is so bad that any attempt to improve the present building would, in fact, be a waste of money. Site, general arrangement, particular details, drainage, &c., all seem to be irredeemably bad. "The question of rebuilding the hospital should," says Dr. de Chaumont, "be at once taken into serious consideration, for although some useful remedial measures may and ought to be carried out in the meantime in the present building, it is hopeless to expect that it can be made a good hospital in the proper acceptation of the term." The details given amply confirm this conclusion, and throw considerable doubt upon the advisability of any tinkering being attempted even for the temporary improvement of the building. The remedial measures suggested pending more radical changes simply serve to show that the radical changes should have the first, if not the sole, consideration.

TRICHINÆ AND TRICHINOSIS.

THE official report prepared for the United States' Government by Dr. W. C. W. Glazier, of the Marine Hospital Service, is on the whole somewhat disappointing. If it have for one object to set before the American public a complete and trustworthy account of trichinæ and trichinosis, it has also for another to make known the actual condition of the prevalence of parasitic disease of this nature in the United States, and to disabuse certain European countries of the exaggerated notion that has recently possessed them of the degree of prevalence of trichinosis among American swine. The first object has been very fairly attained by Dr. Glazier in the detailed account he gives of trichinæ and trichinosis, chiefly taken from German sources; the second is very imperfectly dealt with. He gives a table of the various accounts of trichinæ occurring in man which have been published in the United States, and presents a summary of the reports from pathologists in different parts of the States, which justify the inference that trichinosis in the human species is by no means commonly known in America; but he supplies no definite information upon the prevalence of the disease among the United States' swine, which is the question that most interests us on this side of the Atlantic, and which has given rise to so much uneasiness both in this country and on the continent of Europe. The report generally points to the importance of a thorough investigation of the subject in relation to swine in the United States.

EARL GRANVILLE ON THE BROWN INSTITUTION.

IN his opening remarks after the presentation of degrees at the University of London, on Wednesday last, Earl Granville made a graceful allusion to the loss sustained by the University in the election of the Superintendent of the Brown Institution, Dr. Greenfield, to the important chair of Pathology at Edinburgh University, and congratulated the University upon the appointment, remarking that London, perhaps, might some day have the pleasure of conferring similar honour upon an Edinburgh graduate. He referred in warm terms to the great and important labours effected at the Brown Institution since its foundation, ten years ago, by Professor Burdon Sanderson, Dr. Klein, and Dr. Greenfield, and held that these results more than justified the step taken by the University in accepting the Brown bequest, and undertaking to carry out its provisions. Passing from the scientific work of the institution, which had been so fruitful, Earl Granville remarked upon the benefits it had conferred as a hospital for animals, upwards of three thousand having been treated there during the past year.

ROYAL UNIVERSITY OF IRELAND.

THE pecuniary endowments proposed by the Senate of the new university are extremely liberal, more especially as regards the Fellowships. Independent of the various exhibitions offered, it is suggested by the framers of the scheme that twelve scholarships of the value of £50 each shall be allocated each year for competition—viz., four in classics, four in mathematics, and four in modern literature. They will be tenable for three years, and will be open to all students who at the Matriculation Examination next preceding the Scholarship Examination shall have gained honours in those subjects respectively. As regards the Fellows, the scheme proposes that they shall number forty-eight, the salary of each, if he be not also a Fellow or Professor of some other university or college attached to a university or college endowed with public money, being fixed at £400; while should he be in receipt of a salary from another university or college as Fellow or Professor, then he shall receive such sum annually as, with his other salary, shall amount to £400 a year. Each Fellow shall hold office for seven years. There shall be also fourteen Junior Fellowships, tenable for seven years.

BLEEDING AFTER TOOTH EXTRACTION.

IN another column Dr. Prickett draws attention to a subject of considerable interest—namely, the evil occurrence of, and the consequences resulting from, prolonged bleeding after tooth extraction. The Dentists Act, having thrown open the practice of dentistry in all its branches, together with all that can be comprised under that term, has done much to enlarge the source of danger to which our correspondent refers. Cases have been brought under our notice in which very grave results have supervened on the hæmorrhage from the socket of a tooth which has been "dragged out" of its place by a non-surgical dentist. The public will do well to be warned of the peril which may ensue if bleeding after tooth-drawing is neglected. Sufferers who have made the mistake of not in the first instance applying to a fully qualified surgeon for the relief of toothache should at least be prompt in securing the services of a competent practitioner when hæmorrhage begins.

THE FARMYARD IN THE STREETS.

SINCE the week before last a large quantity of straw, daily increased by horse droppings, has been lying where Grosvenor-street is crossed by Davies-street. The decomposing vegetation, wetted by the rain, and warmed into chemical activity by the sun, is blown about by the east wind into the neighbouring houses, the inhabitants of which thus enjoy the advantage of inhaling the odours of the farmyard without the trouble of leaving the West-end at the height of the season. They owe this accommodation to the authorities of the parish of St. George's, Hanover-square, who, however, if the arrangement be harmless, are somewhat inconsistent in one of the sanitary hints which they freely circulate—"Empty dustbins weekly, and keep them covered, but do not throw vegetable matter into them—better burn it." Is the medical officer of health out of town?

THE EDINBURGH GRADUATES' CLUB.

A LARGE company assembled at the dinner of this club on Wednesday, May 11th. The chair was occupied by Professor Masson, who humorously discussed the mission of Scotchmen in England. Amongst the visitors were Lord Rosebery, Mr. Woolner, R.A., Professor Macfarren, J. A. Campbell, Esq., M.P., J. Erichsen, Esq., Col. Arthur, Alderman Ellis, and Alderman Glover, J.P. Dr. Lyon Playfair proposed the health of Lord Rosebery, who, in the course of his reply, referred to the Commission on the Medical Acts, and said that he had declined taking part in the work from the somewhat delicate nature of his position as Rector of two Scotch universities. He spoke favourably of Lord Camperdown as chairman.

THE LIVERPOOL ROYAL INFIRMARY SCHOOL OF MEDICINE.

ARRANGEMENTS have been completed with University College, Liverpool, by which the School of Medicine in connexion with the Royal Infirmary from henceforth becomes its Medical Faculty. The school will be represented on the Senate of the College by the Lecturers on Medicine, Surgery, Anatomy, and Physiology, who for the future will be designated Professors. The College has acquired the site and grounds of the Lunatic Asylum connected with the Royal Infirmary, which is about to be closed, and as soon as the necessary adaptations are completed the College will be opened.

THE ROYAL (MEDICAL ACTS) COMMISSION.

No formal summons for a meeting of the Commission has, we are informed, yet taken place, but it is probable that a meeting will be held in about ten days. The address of the Medical Acts Commission is 2, Victoria-street, S.W. The secretary is John White, Esq., Barrister-at-law.

WE regret to announce the death of Surgeon-Major Charles Haines, Army Medical Department. Mr. Haines left Bombay as a passenger in H.M. troopship *Crocodile*, in very bad health, suffering from phthisis pulmonalis, and expired on board ship the day after the vessel reached Portsmouth. Mr. Haines obtained his commission as an assistant-surgeon in September, 1863, and was promoted to the rank of Surgeon-Major in April, 1876.

A CASE of alleged metallic poisoning has been made the subject of judicial inquiry at Stone, Staffordshire. The facts brought to light at the examination of the accused are of some medico-legal interest, and may call for comment on a future occasion.

FOR the first time in its annals our leading Medical Society met and adjourned without having any scientific material for discussion. On Tuesday last this unique event happened to the Royal Medical and Chirurgical Society, and it betokens either that the Fellows are becoming tired of writing papers, or that their whole energies in this direction are absorbed by the forthcoming Congress. The latter view is, we trust, the correct one; and the former will, no doubt, speedily be dispelled by an increased amount of vigour on the part of the Fellows, who will have the advantage of securing an early day for the reading of their papers.

THE annual dinner of the officers of the Army Medical Department will, we understand, be held at the Inns of Court Hotel, Lincoln's-inn-fields, on Saturday, June 4th, under the presidency of Sir W. M. Muir, the Director-General. Officers intending to be present on the occasion should send their names to Surgeon-Major Clarke, Whitehall-yard.

THE *London Gazette* of the 6th inst. contains an Order in Council renewing for the term of five years, dating from May 23rd, the appointment of Mr. John Simon, C.B., F.R.S., and Mr. Thomas Pridgin Teale, F.R.C.S., as members of the General Council of Medical Education and Registration of the United Kingdom.

THE appointment of Dr. Fetherston, a member of the Senate, to a seat on the Council of the University of Melbourne, forms a subject of gratulation by the *Australian Medical Journal*. It appears that several attempts had previously been made to secure the return of a medical candidate, but without success.

THE *Echo* of Thursday says the fasting girl at Strathaven, in Scotland, having been threatened with incarceration in a lunatic asylum, began to partake freely of food yesterday morning. The medical men have their suspicions that she has been taking food all along.

THE Council of the College of Surgeons, at a meeting held on Thursday, elected Mr. Charles Sissmore Tomes, F.R.S., a Member of the Board of Examiners in Dental Surgery, in the room of Mr. Salter, resigned.

THE Governor of Gibraltar has appointed John H. Bryant, F.R.C.P. Edin., to take medical charge of the sick poor of the South District, in the place of Surgeon-Major A. Allan, M.D., resigned.

PROFESSOR GEGENBAUER, of Heidelberg, is reported to be suffering severely from blood-poisoning, the result of a wound incurred whilst dissecting.

DR. PAUL F. MUNDÉ, of New York, has been elected Professor of Gynæcology in Dartmouth Medical College, in place of the late Dr. Peaslee.

ROYAL INSTITUTION OF GREAT BRITAIN.—The following Vice-Presidents for the ensuing year were announced at the general monthly meeting, on May 9th, 1881:—Mr. William Bowman, Mr. Frederick Joseph Bramwell, Sir W. Frederick Pollock, Bart., Mr. William Spottiswoode, Mr. George Busk, Mr. Warren De La Rue, M.A., D.C.L., F.R.S., Secretary. Messrs. Frederick Arthur Crisp, Ernest Gye, and Samuel Armstrong Lane were elected members. Dr. John Tyndall was re-elected Professor of Natural Philosophy.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Stroud, Rural (*Gloucestershire*).—Dr. Partridge estimates the population in this district in 1880 at 29,320, and gives the birth-rate for that year as 28·1, and the death-rate as 17·2, per 1000 inhabitants. He has the following comments upon the deaths entered as "uncertified" in the register, in this instance forming 5·5 per cent. of the total number registered:—"We may fairly assume, when a death is entered on the register as uncertified, that the person has not been seen by a registered medical man, or has been in the hands of an unqualified person, or perhaps of some 'wise woman.' The stated causes of death in such cases are almost worthless, being the opinion of ignorant or incompetent persons, and where medical aid is not sought it is most likely the result of neglect on the part of the parents. So many premature births and convulsions in infants lead to the question, Are they the result of malpractice on the part of midwives? Or may not some be attributed to *abortifacients?* One unqualified practitioner who resided in this district has left, but no certificate was accepted from him as to the cause of death. That there are still some persons who practise without being qualified there is no doubt, and probably some of the uncertified cases have been treated by them. There is no lack of medical aid to be had, and persons dying without any, except in cases of sudden illness, is at least very suspicious, as I know that the parish surgeons are always ready to assist in time of need. These cases should be carefully inquired into by persons more competent to judge them than the ordinary policeman, whose knowledge of these things does not enable him to distinguish between a case of 'overlaying' a 'premature birth,' or a 'probable hydrocephalus.' An inquiry into the causes of death in uncertified cases, especially those of illegitimate children, by a competent person, would have a deterrent effect on those whose unnatural feelings lead them to neglect their own offspring, and who are too often glad to be rid of the trouble and expense attending the care of them." Dr. Partridge considers separately the sanitary condition and requirements of the several places entering into the rural district.

Tamworth, Rural (*Staffordshire*).—Dr. Herbert J. Faussett's report for this district in 1880 contains much of interest on its sanitary condition and administration. The population is estimated at about 14,000, and is distributed over an area of 40,000 statute acres. The birth-rate is given at 36·0, and the death-rate at 16·9 per 1000 inhabitants. He notes of diarrhœa among young children, prevalent in August and part of September, that "the disease appeared in a more virulent form within the area of the river district. There is little doubt," he adds, "that the exhalations arising from open drains, from ditches filled with stagnant sewage, and from ground sodden with repeated inundations of liquid sewage from a polluted river, contaminate the air with putrefactive ferments, which, when breathed in, originate disease in all those who from lowered health are unable to resist such potent influences." He attributes, moreover, some part in the production of diarrhœa to polluted water from shallow wells, and even from deep wells within the area of the river-bed. The following observations on floods in their sanitary aspect will be read with interest in view of the present proposition for legislation for the regulation of rivers. "The question of the prevention of floods is one which greatly concerns the health of those living in the neighbourhood of low-lying districts, liable to be flooded, over and over again, with water polluted with sewage and every description of filth. Rivers have hitherto been considered the natural recipients for all the sewage that can be turned into them. The Tame when it enters this district is already contaminated with sewage received in its course higher up, and it is also further polluted at various points within the district, more especially when it is at its ordinary level. When, however, the river is in a flooded condition, and receives, in addition to the sewage and solid refuse of towns and villages, the mud and detritus brought by each drain and streamlet, all this filth is washed over the lands for some hundreds of yards in width along its course. The owners and occupiers of any houses in these localities are exposed to all the dangers and losses derived from having the crops swept off the meadows, and the produce of their fields and gardens destroyed. Houses and premises are, in many places, flooded with this filthy polluted water, which makes them very unhealthy to live in, from the saturated state of the floors and soil, and from the foul exhalations arising therefrom. This terrible condition of affairs, which applies in a lesser degree to the lands flooded by the river Anker, is continually taking place, and must tell very unfavourably on the health and constitutions of the inhabitants in many ways, where so many hundreds of acres are so frequently under water; so many as sixteen times during the year. For, in addition to the great dangers to which human life is exposed, the injurious deposits left by the floods have done an immense amount of damage to the lands, which have become less fertile and nourishing, and at times positively injurious for cattle."

Shildon, Urban (*Durham*).—Mr. Fielden gives the birth-rate and death-rate for this district in 1880 as 31·6 and 19·3 respectively per 1000 inhabitants, the population being estimated at 10,000. Scarlet fever and measles were epidemic in the district during the course of the year, and Mr. Fielden observes that he generally found the cases occurred under circumstances where there was more or less neglect of sanitary precautions—to wit, wet or uncovered privies, uncemented, undrained ashpits, heaps of decaying matter lying near doorways in small yards, imperfectly trapped or constructed drains, &c. It is evident that there is no lack of work for the sanitary authority to do in this district, and it is somewhat disheartening to read that the recommendations of a special report prepared by the medical officer of health on the sanitary condition of the district should not have been attended to.

Worcester (*City*).—Dr. Strange's report for 1880 shows much that is gratifying in the sanitary condition of this city. It would appear that nuisances have markedly diminished in number, that the city water-supply is good, and the use of water from wells is being abandoned in all the closely built parts of the city, very few pumps being now in use. Further, the sewerage of the city is being extended where most needed, and amended where defects have been shown. The substitution of waterclosets for open privies is, moreover, being steadily carried out wherever the condition of the same permits of this being done. Worcester has a hospital for infectious diseases, which Dr. Strange states "continues to justify its establishment." The population is estimated at 35,200, and the birth-rate for 1880 was 33·22, the death-rate 20·0 per 1000 of the inhabitants. On a retrospect of the past seven years, Dr. Strange observes "the data presented, I think, will justify your authority in feeling satisfied that the great work of sanitary amelioration is being fairly and steadily carried out."

Saltley, Urban (*Warwickshire*).—Mr. W. G. Cresswell, in his report on this district for 1880, returns a general death-rate of 23·96 per 1000 of the population; this rate, as well as the mortality from zymotic diseases, being higher than in either of the three previous years. This increase of mortality is assigned to the large number of deaths from diarrhœa, and upon this subject Mr. Cresswell observes: "The fault lies with the mothers and nurses; not, let it be understood, in their wilful neglect, but rather in their not knowing the principles which ought to govern the feeding of, and otherwise caring for, their young charges." Mr. Cresswell proposes to combat this ignorance of mothers and nurses by issuing a small pamphlet on infant nurture. The prevalence of diarrhœa was in the autumn, and earlier in the year the district suffered from scarlet fever. It would appear that a system of sewerage is being carried out in the district.

Reading, Urban (*Berkshire*).—Dr. Shea's report for 1880 shows that the sanitary authority of this urban district are not unmindful of their duties, and that they are fortunate in possessing a medical officer of health peculiarly able to advise them rightly on the medical aspects of these duties. Dr. Shea's report is an excellent example of what a report should be in districts of this class. Reading in 1880 had a population estimated at 41,500, and its death-rate for that year is given as 19·6 per 1000 inhabitants—a somewhat higher death-rate than obtained in the previous year. The birth-rate for the same period was 37·8 per 1000. The augmented death-rate for 1880, and particularly the higher rate from zymotic diseases, are attributed to the unusual

mortality that occurred last autumn from diarrhœa, and to the fatality of scarlet fever and whooping-cough during the earlier part of the year. Dr. Shea has interesting observations on the several forms of zymotic disease which appeared in the urban district during the year, but we must limit our attention to his observations on diarrhœa, and of these we would reproduce the following. He tells us that in the year 1875 diarrhœa was extremely fatal in Reading, though not so fatal as in 1880. To this he adds that, "In both these years, 1875 and 1880, there was *a very wet July, followed by a hot August, and when such a sequence prevails, summer or autumnal diarrhœa prevails.*" Further, he says that so far as the limited data at his command go, "it would appear that the mean temperature and mean rainfall afford no guide, but that a certain relative sequence must be established—(1) a wet month, then (2) a hot and comparatively dry one. If these occur the atmosphere is in a condition to favour the rise of soil and other exhalations, and to favour the appearance of diarrhœa from these causes, and by setting up incipient fermentation in articles of food and drink, &c. No doubt overcrowding, foul air, and bad sanitary arrangements favour the development and fatality of summer diarrhœa, and require to be closely watched and guarded against; at the same time the natural tendency that is created in hot weather and hot climates to throw an excess of elimination of bile on to the liver, and so induce bilious diarrhœa, must not be forgotten."

SMALL-POX HOSPITAL ACCOMMODATION IN THE METROPOLIS.

We are glad to have to state that the Metropolitan Asylums Board have seen their way at least to a partial solution of their difficulty as to providing further hospital accommodation for cases of small-pox in the metropolis. They propose to give up the Homerton Hospital solely to small-pox, dispersing cases of "fever," which under ordinary circumstances would be sent there, in their other hospitals. Further, they are now forming on an extensive estate they have at Darenth, in Kent, where the Board has a very large imbecile asylum, a tent hospital for convalescents from small-pox, and which will accommodate at least 300 patients. The Board propose to take the whole responsibility of transferring convalescents from London hospitals to Darenth, which is sixteen miles from the metropolis by the high road—a drive in an ambulance which convalescents may well undergo without risk to their health. Thus the Board, by its arrangements at Darenth and Homerton, will set free for acute cases of small-pox some 500 beds.

THE NATIONAL HEALTH SOCIETY AND VACCINATION.

The National Health Society has issued an admirable little pamphlet for general distribution among the public, entitled "Facts Concerning Vaccination for Heads of Families." This pamphlet, it is stated, has been revised by the Local Government Board, and this Board has further sanctioned the repayment out of the metropolitan common poor fund the expense of printing twenty thousand copies, and of their distribution from house to house in the Poplar Union by thirty persons appointed by the local Guardians for this duty. We congratulate the Society upon its admirable little pamphlet and excellent action in this matter, and we hope the example of the Poplar Guardians will be largely followed in the metropolis. We trust also that large employers of labour and all who are interested in controlling the present epidemic will give to this pamphlet as much publicity as possible. The society are prepared to supply the pamphlet from their office, 44, Berners-street, W., at the cost of printing—namely, 1*s.* per 1000.

A case of small-pox has been imported into Bristol from London, and Dr. Davies, the medical officer of health, has thought it desirable to suggest to the Sanitary Authority the advisability of taking special measures of precaution as to vaccination. The patient is isolated in the sanitary hospital. At a recent meeting of the Authority, Dr. Davies reported upon some deposits of chemical refuse in the suburbs of the city. It appears that houses were built on a part of this refuse, which, although objectionable, does not appear to be unhealthy, and, indeed, has one negative advantage—namely, no drinkable water can be obtained from it, and so the residents on it are saved from the danger of drinking water from shallow wells and its liability to convey typhoid.

Mr. Dodson, the President of the Local Government Board, having consented to receive a deputation from the Poor Law Medical Officers' Association, on the subject of compulsory superannuation, has fixed Tuesday the 17th instant, at 2 P.M. precisely, at the Board's Offices, Whitehall. It is to be hoped that all Poor-law medical officers and others interested in this question will make an effort to attend, and that they will use what influence they possess to induce such M.P.s as they may happen to know to be present in support of the objects of the Association.

A case was recently heard before Mr. Justice Stephen, in which damages were claimed from the Manchester Corporation for injury done to a house from the bursting of one of the Corporation's sewers during a storm. The learned judge held that the Corporation were bound to see that their sewers were in a sound condition, and as they had failed to do this, they were liable to damage; but he stayed execution to give the Corporation opportunity to move for a new trial.

The Local Government Board have had to direct the attention of the Prescot Guardians to the exceptional entry, in a list of seventy-five children in a vaccination return, of eight reported as "insusceptible of vaccination." The Board have requested that the certificates of these cases shall be forwarded to them, cases of insusceptibility being of rare occurrence.

A milk-dealer has been fined at Warrington for not having notified to the Sanitary Authority a case of scarlet fever, a child in her house, which she attended and nursed while pursuing her business. The child died, but no medical man was called in until the day of death.

In a case preferred before the Master of the Rolls, for an injunction against a small-pox hospital erected by the Fulham District Board of Works in Little Wormwood Scrubs, the application was refused, but leave given to the appellants to serve motion at a later date, and produce further evidence.

No less than eleven district boards and vestries in different parts of the metropolis have made overtures to the Poplar District Board for accommodation for small-pox cases in their infectious disease hospital at West Ham.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

English urban mortality showed a further decline last week, and was lower than in any previous week of this year. In twenty of the largest English towns, estimated to contain in the middle of this year nearly a third of the entire population of England and Wales, 5205 births and 2929 deaths were registered last week. The births exceeded by 19, whereas the deaths were so many as 328 below, the average weekly numbers during 1880. The annual rate of mortality in the twenty towns, which had been equal to 22·9, 22·0, and 21·2 in three preceding weeks, further declined last week to 20·1. The lowest rates in the twenty towns last week were 12·4 in Brighton, 14·4 in Leicester, 16·2 in Sunderland, and 16·5 in Birmingham. The rates in the other towns ranged upwards to 22·1 in Liverpool, 23·2 in Hull, 24·3 in Nottingham, and 28·5 in Wolverhampton. During the first five weeks of the current quarter the death-rate in the twenty towns averaged 21·7 per 1000, against 24·3, the average rate in the corresponding periods of the five years 1876–80.

The deaths referred to the principal zymotic diseases in the twenty towns, which had been 410, 382, and 375 in the three previous weeks, rose again to 410 last week; these included 105 from measles, 89 from small-pox, 76 from whooping-cough, 56 from scarlet fever, and 31 from fever, principally enteric. The annual death-rate from the principal zymotic diseases averaged 2·8 per 1000 in the twenty towns, and ranged from 0·0 and 0·4 in Brighton and Hull, to 3·4 and 3·7 in Portsmouth and London. Measles showed the largest proportional fatality in Sheffield, Bristol, and London, scarlet fever in Wolverhampton and Hull, and whooping-cough in Sheffield and Salford. The highest death-rate from fever was again recorded in Liverpool. The 22 deaths referred to diphtheria in the twenty towns included 12 in London and 4 in Portsmouth. Small-pox caused 94 more deaths in London and its outer ring of suburban dis-

tricts, and 1 in Oldham; whereas no fatal case was recorded in any of the eighteen other provincial towns. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had been 963 and 942 at the end of the two preceding weeks, rose to 1093 last week; this is the largest number that has been under treatment in these hospitals since the epidemic of 1871–72. The new cases admitted to these hospitals were 363 last week, against 244, 227, and 178 in the three previous weeks; the Homerton Fever Hospital has just been opened for small-pox patients, which accounts for the large increase in the number of admissions last week.

The deaths referred to diseases of the respiratory organs in London, which had been 395, 338, and 328 in the three preceding weeks, further declined to 297 last week, and were 17 below the corrected average number in the corresponding week of the last ten years; they included 152 from bronchitis and 99 from pneumonia. The annual death-rate from lung diseases, exclusive of phthisis, was equal to 4·2 per 1000 in London last week; while the rate from the same diseases was equal to 4·6 in Liverpool.

The causes of 89, or 3·0 per cent., of the deaths in the twenty towns last week were not certified either by a registered medical practitioner or by a coroner. This proportion of uncertified deaths did not exceed 1·6 per cent. in London, whereas it averaged 4·4 per cent. in the nineteen provincial towns. No uncertified deaths were registered last week in Portsmouth, Norwich, or Plymouth; while the proportions of such deaths were largest in Sunderland, Oldham, Leeds, and Hull.

HEALTH OF SCOTCH TOWNS.

In eight of the largest Scotch towns, having an estimated population of rather more than a million and a half persons, the annual death-rate last week was equal to 21·4 per 1000, against 23·5, 22·1, and 21·2 in the three preceding weeks; this rate exceeded by 1·3 the average rate prevailing in the twenty English towns. The rates in the eight Scotch towns ranged from 17·3 and 20·0 in Leith and Edinburgh, to 25·3 and 31·8 in Perth and Paisley. With reference to the recent high death-rate in Paisley, it is noted in the Registrar-General's return that it is probably over-stated by an underestimate of the present population, as the recently enumerated numbers have not yet been revised and brought into use. The deaths referred to the principal zymotic diseases in the eight towns, which had been 82, 69, and 64 in the three preceding weeks, were again 64 last week; they included 17 from diarrhœa, 12 from "fever," 11 from whooping-cough, 11 from scarlet fever, 8 from diphtheria, 5 from measles, and not 1 from small-pox. The annual death-rate from these zymotic diseases averaged 2·5 per 1000 in the eight towns, and was 0·3 below the average rate from the same diseases in the twenty English towns. This zymotic death-rate in the eight Scotch towns ranged from 1·0 and 1·3 in Aberdeen and Greenock, to 2·9 and 3·2 in Glasgow and Paisley. The deaths referred to diarrhœa showed a further increase upon recent weekly numbers, and were equal to a considerably higher death-rate than that attributed to the same cause in the English towns. The deaths from "fever" (including typhus, enteric and simple continued), which had been 7, 11, and 7 in the three preceding weeks, rose to 12 last week, of which 7 occurred in Glasgow, 2 in Edinburgh, 2 in Dundee, and 1 in Paisley; the annual death-rate from this cause was equal to 0·48 per 1000, and was more than twice the average rate from fever in the twenty English towns. The 11 fatal cases of whooping-cough showed a marked further decline from the numbers in recent weeks, and included 4 in Glasgow, 2 in Edinburgh, and 2 in Paisley. The 11 of scarlet fever, however, showed an increase; 5 occurred in Glasgow, 4 in Edinburgh, and 2 in Dundee. Of the 8 deaths referred to diphtheria, 7 were returned in Glasgow; as were all the 5 fatal cases of measles. The deaths referred to acute diseases of the lungs (bronchitis, pneumonia, and pleurisy) in the eight towns, which had steadily declined from 163 to 116 in the four preceding weeks, rose again to 140 last week, and were equal to an annual rate of 5·5 per 1000, while the rate from the same diseases in London did not exceed 3·6.

HEALTH OF DUBLIN.

The rate of mortality in Dublin showed a further decline last week, and was lower than in any previous week of the year. The annual death-rate in the city, which had been equal to 32·6 and 30·7 per 1000 in the two preceding weeks, further declined to 27·5 last week. During the first five weeks of the current quarter the death-rate in the city averaged, however, 30·1 per 1000, against 21·9 in London and 20·9 in Edinburgh. The 176 deaths in Dublin last week showed a further decline of 20 from the numbers in the two previous weeks, and included but 8, or less than 5 per cent., which were referred to the principal zymotic diseases, against 9 and 19 in the two previous weeks. These 8 deaths from zymotic diseases included 3 from fever (typhus, enteric or simple), 2 from whooping-cough, one each from small-pox, measles, and diphtheria, and not one either from scarlet fever or diarrhœa. The annual death-rate from these zymotic diseases was equal to 1·3 per 1000, while the rate from the same diseases was 3·7 in London and 2·4 in Edinburgh. The deaths referred to fever in Dublin, which had been 2 and 14 in the two preceding weeks, declined again to 3 last week; the annual death-rate from fever, however, was more than twice as high as the average rate from the same cause in the twenty large English towns. The fatal case of small-pox was the first recorded within the city since the end of March. The deaths referred to the other principal zymotic diseases were again satisfactorily few. The deaths of infants and of elderly persons differed but slightly from the numbers returned in the two preceding weeks.

VITAL STATISTICS OF TRINIDAD.

The Registrar-General of Trinidad has recently presented his report upon the vital statistics of the island during 1880, which contains some points of interest, although its statistical information is of a very meagre description. The population of the island is, for the purpose of this report, estimated at 140,000; but the estimate, it appears, is calculated by the addition of the excess of births over deaths since 1871 to the population then enumerated, without taking any account of the increase by immigration. This immigration, a considerable portion of which consists of coolies from India, has probably, it is said, raised the population to about 184,714, which number Sir S. Freeling, the Governor, anticipated would be enumerated in the course of a few days. With such an opinion of the present population of Trinidad it is not easy to account for the adoption of 140,000 as the basis for calculating the vital statistics for 1880. It is evident that the population of the island has rapidly increased in recent years, as only 109,638 persons were enumerated in 1871. In 1880 the births registered were 5346, against 3842 in 1871; and the deaths were 4010, showing an excess of births over deaths equal to 1336. The birth- and death-rates are given as 38·2 and 28·6 per 1000 respectively; both, however, are probably overstated by an under-estimate of the population. The mean death-rate for the ten years 1871–80 is given as 33·3 per 1000, and even assuming that this is somewhat overstated it is evident that the mortality is high enough to give undeniable evidence of insanitary conditions. It is disappointing to find that the report gives no information except the bare numbers of births, deaths, and marriages registered. Without tables showing the causes of death and the ages of the decedents it is impossible to form any sound conclusions as to the causes of the excess of mortality in the island.

HEALTH MATTERS GENERALLY AT HOME AND ABROAD.

SCARLET FEVER AT HALIFAX.

Dr. Ballard, who has been engaged in an investigation of the recent unusual prevalence of scarlet fever in Halifax, met the Town Council there a few days ago and submitted to them the results of his inquiry to that date. In the main it would appear that these, particularly in regard to an infected milk-supply, have confirmed the results obtained by the previous investigations of Dr. Ainley, the medical officer of health, and he gave one example in this direction which we do not think has been made public before. One townsman during the outbreak had an evening party, and of thirty-five people who met there twenty-six were soon after attacked with scarlet fever or sore-throat. Dr. Ballard believed that this singular spread of the disease had to do with the distribution of infected cream. He animadverted upon the insufficient action taken by the sanitary authority in presence of the disease, and noted especially the want of proper supervision of inns where scarlet fever was present. He mentioned one instance especially where children suffering or convalescent from the disease were allowed to run about among the visitors

without any check. He remarked also upon the action of the medical men in not sending reports to the medical officer of health of cases of scarlet fever coming under their notice, thus sacrificing the general good of the community to the professional feelings which had made Dr. Ainley's appointment so objectionable to them. But we apprehend that the profession in Halifax is as the profession elsewhere, and it was not to be expected that official success could be attained in the presence of such an anomaly as the appointment of a "homœopathist" to confer on health matters with the local practitioners of scientific medicine.

THE MILK EPIDEMIC AT ABERDEEN.

A Commission of Inquiry, appointed under the Public Health Act, has been held at Aberdeen into the curious outbreak of sickness which has recently prevailed in the town, apparently in connexion with the distribution of milk from a particular source. The Commissioners were Mr. Andrew Rutherford, advocate, Edinburgh, and Dr. H. D. Littlejohn, medical officer of health of that city, Mr. Charles Duncan, procurator fiscal, acting as their agent in the inquiry. A good deal of evidence was given in the course of the inquiry, but little was added to the information which has been already published in THE LANCET. The newer matter chiefly related to a series of microscopical examinations of the suspected milk conducted by Prof. C. Ewart, and which went to show that it contained numerous micrococci and bacteria spores. He believed that these microscopic organisms constituted a morbid element in the milk, but he had not completed his investigations regarding them; but so far as he had gone the results indicated that they were the cause of the disease. The Commissioners sat three days, and the results of their deliberations on the evidence submitted to them will be embodied in a report to the Board of Supervision.

Dr. W. B. Carpenter has contributed to the columns of *The Times* a letter, giving the results of his personal experience of vaccination and small-pox, and the question of vaccination generally. This statement of experience will, it may be hoped, cause anti-vaccinationists to pause in their suicidal course, and act as an antidote to the pernicious nonsense which they have scattered broadcast. Dr. Carpenter adds nothing new to our knowledge of the question, but he confirms in a most instructive and ample fashion the current views as to vaccination and revaccination as protective against small-pox.

THE SERVICES.

The *Bombay Gazette* of the 21st April publishes an announcement that Brigade-Surgeon Lundy, Army Medical Department, attached to the 2-22nd Regiment at Allahabad, had committed suicide by poison on the 19th of that month. On inquiry at the War Office we find that up to date no confirmation of the report has been received there.

Surgeon-Major A. Stephen, M.B, Bengal Medical Service, has been appointed Statistical Officer to the Government of India in the Sanitary and Medical Departments from the 18th November, 1880, in succession to Surgeon-Major J. L. Bryden, M.D., deceased.

ADMIRALTY.—In accordance with the provisions of Her Majesty's Order in Council of April 1st, 1881, Fleet-Surgeon Charles John Fennell has been placed on the retired list of his rank from May 9th.

The following appointments have been made:—Staff-Surgeon Thomas O'Sullivan, M.D., to the *Mutine*, when commissioned; Staff-Surgeon William H. Colahan, M.D., to the *Revenge*, vice Surgeon M'Swiny; Surgeon William B. Drew, to the *Cockatrice*, when commissioned; Surgeon Myles O'C. M'Swiny, to the *Wrangler*, when commissioned. Staff-Surgeon H. Clerke, to the *Duncan* (in lieu of a surgeon), vice O'Sullivan; Surgeon Christopher Pearson, to the *Boscawen*, additional for the *Sealflower*, during cruising season; Staff-Surgeon Samuel Bamfield, to the *Implacable*, vice Campbell.

AT Highgate Police Court this week a first-class attendant at Colney Hatch Asylum was fined £2 and costs for kicking a patient on the side.

UNIVERSITY OF LONDON: CONVOCATION.

THE PRELIMINARY SCIENTIFIC M.B. EXAMINATION.

A MEETING of Convocation of the University of London was held on the 10th instant. Dr. Storrar, Chairman, presiding. Mr. Allen was re-elected Clerk of Convocation.

Dr. POORE moved the adoption of the following resolution, recommended by the Annual Committee: "That it is desirable that the Preliminary Scientific (M.B.) Examination be held twice in the year—viz., in March and August; and that it be optional for candidates to take up either all four subjects at once, or two at a time, such subjects to be previously specified by them." A previous resolution had been passed unanimously by the House in January, 1880, and had been considered by the Senate. In that resolution it was recommended that the First M.B. Examination should also be held twice annually; but this was not so important as the Preliminary Scientific Examination. The Senate, with its usual readiness, had carefully considered the question, and referred it to an influential committee, and now awaited a further opinion of Convocation on the subject. The resolution was aimed at giving every facility to candidates without lowering the standard of the examinations. London afforded great opportunity for the study of medicine, greater than any place in the world, and yet, in order to obtain degrees, its students went to Edinburgh to graduate. The "paltry numbers" (the phrase used by a distinguished graduate, Dr. Bristowe, in a letter to the Chancellor) who take the London medical degrees were accounted for by the time and consequent expense entailed upon students who, matriculating in January, were unable to present themselves for the Preliminary Scientific Examination till the following July twelvemonth; and who, failing to pass the latter, had to spend another year before being able to make a second attempt. The clamour which had been raised in some quarters against the degrees was natural but unjustifiable; still the University was bound to give every facility if it would maintain its place and take away just grounds of complaint. The reasons in favour of doubling the examinations were shortly these. That the number of students seeking degrees is on the increase. That it would shorten the time required to take a degree, much time being at present used before the student can enter on his proper medical studies. It would be an act of justice to those who fail in only one subject—no inconsiderable number,—at present most hardly treated. Moreover, the increase in the numbers of those who take the London degrees would be an advantage to the professors, to the students, the university, and the teachers of science. The Edinburgh professorships were sought after because of their great value, and if London students were encouraged to go in for the science examinations, the teachers would reap the benefit. The objections raised to the change depended mainly upon the abolition of the Honours Examination, which was said to be a necessary outcome of the change. The objections were not raised by the students. They were as follows. That by doubling the examination the courses of study as at present prescribed would be deranged; but that was not an insuperable difficulty, and, besides, did not concern the University, which had only to consider the needs of its own graduates. It was said that it would increase the difficulties of examiners and render the obtaining of examiners a matter of difficulty; but surely this could not be seriously maintained. Then, there was the abolition of Honours, to which another resolution was devoted. The final clause of the resolution was proposed to meet the views of those who held that some students could carry two or three subjects in their heads at one time, but not four.

Dr. CURNOW seconded the resolution, and directed especial attention to the fact that the Senate had received replies to a request it had made to the deans of the metropolitan medical schools upon the desirability of this change, and that 13 out of 15 were in favour of it. This showed that those who were directly concerned in medical education, and who knew where the student's difficulties lay, were of opinion that the facilities asked for should be granted.

Dr. G. C. TAYLOR opposed the resolution, maintaining that it was of the greatest importance that nothing should be done to lower the standard of efficiency required of medical graduates.

Mr. R. T. ROBERTS moved an amendment, leaving out all the words after "August"; as, if the clause stood, it would not be justified in that examination alone, but would have to be applied to Matriculation also.

Mr. TIDMARSH seconded the amendment, on the ground that the clause in question was contrary to the spirit of the University.

Mr. TYLOR questioned whether the Preliminary Scientific Examination should be retained. It was instituted in 1861, and contained few subjects really essential to medical graduates, to whom Greek was even more necessary.

Prof. THISTLETON DYER said the change proposed was one which was held to be of great moment by the executive officers of the examination. The argument that a great number of candidates presented themselves did not accord with the further statement by Dr. Poore, that the degrees were not sought after. The number of candidates was not larger than could be dealt with at the examination, and he considered the resolution as a subtle attempt to reduce the standard of these examinations. He could not see how multiplying examinations would afford facilities to decently prepared candidates, but only to those who would be encouraged to come up on the chance of passing, knowing that if they failed they could appear again after a short interval. The Edinburgh professorships were valuable because there was one great medical school in that city, and for no other reason. The resolution would have the effect of encouraging private study, to the detriment of teachers. He did not think much stress could be laid on the answers furnished by the deans of the medical schools. No doubt occasionally hard cases of rejection on simple subjects did occur, but such cases might be met if the Board of Examiners advised that a candidate so rejected might be examined in that subject only on his second appearance.

Dr. PYE-SMITH, as one of those who signed the memorial to the Senate, gave his reasons for opposing the resolution if amended as proposed. In the course of his remarks he said all were agreed as to the desirability of affording facilities for obtaining medical degrees by a larger number of candidates, but care should be taken that the value of the degrees be not interfered with. It was undesirable to make the degrees easy, and he was of opinion that the examinations ought to be such as a majority of men could not pass, and he did not see how the taking of a degree could be facilitated without injuring its value. The idea of having two examinations annually was open to several objections. Twelve months was not too long for preparation for the Preliminary Scientific Examination, which stood on a footing quite distinct from the Matriculation. The latter dealt with subjects studied during the whole of school life, whereas the former embraces subjects to which only one year has been devoted. Holding the examination twice a year would practically lead to the inference that it was an examination which could be passed after six months' study, and would be a direct incitement to cramming. Therefore, unless the amendment were rejected, he would not vote for the resolution, which without the saving clause would be an unmitigated evil.

Dr. COUPLAND pointed out that the difficulties imagined had not been found by those other universities which held two similar examinations for their medical degrees more than once a year; that it would be easy to insist upon a year's interval elapsing between the passing of Matriculation and the Preliminary Scientific M.B.; that the value of the examinations did not depend upon their number, but upon their nature; and that the chief point which had been raised—viz., the disarrangement of class instruction—was not so great as not to be overcome. Students preparing for these examinations did not require lengthened courses, embracing the whole of the subjects (e.g., chemistry), and practically this was admitted in most medical schools where classes were instituted for the Preliminary Scientific Examinations, such classes not commencing before January, the examination taking place in July. The resolution was aimed at relieving a recognised grievance on the part of medical students.

Dr. A. W. BENNETT was surprised that at any medical school in London the attempt should be made to compress the science instruction within six months. He supported the views of Dr. Pye-Smith, and urged that if the amendment were carried those who were interested in the value of this examination should vote against the resolution.

Dr. HILTON FAGGE said the question was that a student at present had often to wait sixteen or eighteen months between the Matriculation and Preliminary Scientific Examination. He was not particularly anxious that only two subjects should be given; but at present it was a fact that the best men were excluded. He thought teachers overestimated the amount of work done through lectures; the student read books independently of them.

Mr. MAGNUS thought Dr. Pye-Smith's position an illogical one, and he did not see, if the resolution were carried and the change effected, any necessity for the schools to alter their courses.

Mr. SPRATLING said that science was becoming more and more taught outside medical schools, so that their convenience was not of moment.

Dr. POORE, in reply, said he did not feel strongly about the amendment. Professor Dyer had no right to say that this was a subtle attempt to lower the standard of the examination, and "cramming" was impossible in such a practical examination as the Preliminary Scientific.

The amendment was then put and declared carried; and the resolution as amended was also carried by a large majority.

Dr. POORE moved, and Dr. CURNOW seconded, a resolution, "That instead of Honours in special subjects (in the Preliminary Scientific Examination) a general list be made at each examination as at Matriculation." This was opposed by Professor Dyer, but was carried with but few dissentients.

A discussion then took place on the desirability of an Act providing for the registration of teachers, but this and further resolutions bearing on the same subject and upon Sir John Lubbock's Bill were eventually passed over.

Mr. A. P. HENSMAN moved the following resolution:—"That it is just and desirable that women who are graduates of this University, and of the requisite standing, should be entitled to become members of Convocation, and to vote at the election of the Member of Parliament of the University," which was seconded by Mr. Nesbitt.

To this an amendment was moved by Mr. A. McDowall, seconded by Dr. A. W. Bennett, "That female graduates be admitted to Convocation."

The adjournment of the debate was moved by Mr. Tylor and seconded by Mr. Morris. It was supported by Mr. Hensman, and on being put to the vote was carried.

The House then adjourned.

INTERNATIONAL MEDICAL CONGRESS.

BY the change in the presidency of the College of Physicians Sir W. Jenner becomes *ex officio* chairman of the General Committee of the Congress, a post the duties of which have up to the present time been so ably discharged by the chairman of the Executive Committee, Sir Risdon Bennett. Owing to a deficiency in space for the accommodation of the sections dependent on the fact that the honours' examinations of the London University will necessitate a portion of the buildings in Burlington-gardens being reserved, the Executive Committee have had to look for fresh meeting places, and these have been generously placed at their disposal by the authorities of the Royal School of Mines in Jermyn-street, and the Royal Institution in Albemarle-street, the use of the theatres of both these buildings having been granted. Two hundred and fifty foreign medical men have up to this time definitely announced their intention to attend. Abstracts of papers are rapidly arriving for translation into the three official languages of the Congress; these will be regarded as strictly private communications until the opening of the Congress, when they will be published in connexion with the programme already in circulation. Unless the abstracts are sent in early the translation and printing of them will become a sheer impracticability. The committee have received fifty guineas from another corporate body, the Faculty of Physicians and Surgeons of Glasgow, thus raising the sum now received from such sources to £235. The London Medical Corporations intend to show all the hospitality in their power; the College of Physicians have most liberally placed their house at the disposal of the Reception Committee for a head-quarters during the meeting, its central position making it especially desirable for such a purpose. The College of Surgeons will entertain the whole Congress at a conversazione in the Hunterian Museum, and

the Society of Apothecaries purpose giving a dinner to a number of members in their hall at Blackfriars. The Executive Committee are anxious to make known to the profession that a register now lies at the College of Physicians in the charge of Mr. Gurner, where members can inscribe their names and pay their membership subscriptions. The inscription of names in this book is particularly to be wished, since it will very much diminish the press of members who will need to be enrolled on the opening day of the Congress. At the College of Physicians, also, forms are provided to permit those desirous of offering hospitality to enter their own names and the names of the guests they wish to invite.

MEDICAL NOTES IN PARLIAMENT.

IN the House of Commons on Thursday, May 5th, a petition was presented from the Royal and Parliamentary burghs of Scotland for the abolition of the Scotch Board of Lunacy.

On Friday, in reply to Colonel Makins, Mr. Dodson stated that the small-pox tents at Fulham were near the Imperial Gas Company's works and the Fulham Waterworks, but to no other buildings whatever. Colonel Makins gave notice of a further question with regard to a proposal to erect a temporary hospital at Wormwood Scrubs. Dr. Farquharson gave notice that he will move the rejection of the Vivisection Abolition Bill.

On Monday, the second reading of the Vivisection Abolition Bill was deferred to July 13th. On the motion of Mr. Whitworth, a return was ordered of the amount of alcoholic stimulants used in Irish workhouses during 1880; and on the motion of Mr. J. Talbot, a return was ordered of the deaths from small-pox in the Metropolitan Asylums District from January 1st to April 30th, 1881. On the motion of Sir R. Cross, a select committee was appointed to inquire into the working of the Artisans and Labourers' Dwellings Acts. In reply to Colonel Makins, Mr. Dodson stated that the Fulham District Board applied to the Metropolitan Board of Works for permission to erect a temporary small-pox hospital at Wormwood Scrubs, and the application was refused, on the ground that the Act of Parliament under which the common was managed did not authorise its use for any such purpose. Replying to Mr. Hollond, Mr. Dodson said that as far as he could learn action under the Artisans' Dwellings Acts had been taken by local authorities only in two or three cases. The Local Government Board had issued a model set of by-laws under Section 90 of the Public Health Act, but of course the actual making of by-laws rested with the local authorities. Mr. Chamberlain, in answer to questions by Mr. O'Donnell and Lord Lymington, stated that the Board of Trade officers were making inquiries into the alleged "horrors on board an emigrant ship," described in the *Pall Mall Gazette* by Miss C. O'Brien. Mr. Fawcett informed Mr. Parker that he was about to make an experiment, which he hoped would be successful, in employing some deaf and dumb persons in sorting papers in the Savings Bank Department of the General Post Office.

Maintenance of Lunatics.

On Tuesday, Mr. Stanley Leighton gave notice that he would, on the 31st inst., call attention to the state of the law relating to the superintendence and maintenance of lunatics, and move, That it is unfair to the ratepayers to oblige them to maintain, out of the poor rates, asylums which are largely occupied by the middle and professional classes; that the practice of granting licences to individuals which authorise them to make a profit by keeping persons in private asylums is liable to abuse; and that it is the duty of the Government to undertake the charge of all lunatics.

Limerick Lunatic Asylum.

On Wednesday, Mr. O'Shaughnessy gave notice that on Monday next he will move for a return of the number of persons now inmates of the Limerick Lunatic Asylum charged to the city of Limerick; and on the same day will ask the Chief Secretary to the Lord Lieutenant of Ireland, if it is not true that the rates of the city of Limerick have lately become charged with the maintenance in the Limerick Lunatic Asylum of several persons, not natives or inhabitants of the city, who, being prisoners in the Limerick District Prison, were transferred thence on account of mental derangement to the Limerick Lunatic Asylum, and several soldiers, enlisted in the city, who, having become mentally deranged in the service, were transferred from Netley to the Limerick Lunatic Asylum.

Small-pox.

On Thursday, Mr. Hopwood asked the President of the Local Government Board whether it be the fact that Dr. Stevens, one of the inspectors appointed by the department at the board of guardians for St. Saviour's, Southwark, recently suggested that in future all children born in the workhouse should be vaccinated before they were allowed to leave, however young they might be, and, in answer to questions, was clearly of opinion that the guardians had the power to enforce this, even without the consent of the mother, upon admission. It was pointed out to him that, in the opinion of some medical men, this would be injurious to the mother, by causing much mental anxiety, and that fatal cases of this kind had been known, but he replied that it would cause the mother still greater anxiety were the child to have small-pox. And whether such a course of proceeding is justifiable by any, and what, law; and, if not, whether he will not at once express disapproval of it. Mr. Dodson said he found Dr. Stevens did suggest that children born in the workhouses should be vaccinated before leaving; and that, subject to the opinion of the medical officer in any particular case, it should be done on the sixth day after birth. Dr. Stevens did not express any opinion of his own as to whether the guardians could enforce this without statutory power, but he did refer to an opinion of the Poor Law Board to the effect that they could. That opinion seemed to have been given as far back as 1848. Mr. Hopwood asked if the right hon. gentleman would answer the last part of the question. Mr. Dodson said his own opinion was that vaccination could not be enforced if the mother objected.

Mr. W. H. Smith asked the President of the Local Government Board if he was aware that the small-pox hospitals of the Metropolitan Asylums Board were full, and that persons suffering from small-pox were now lying in lodging-houses in crowded neighbourhoods, to the great danger of the other inhabitants; and whether he would state what steps he proposed to take to provide the Asylums Board with the necessary powers to deal with the epidemic, and with sufficient authority to carry out the Metropolitan Poor Act, 1867. Mr. Dodson was sorry to say that the small-pox hospitals in the metropolis were full or nearly so. He had no information as to persons suffering from small-pox lying in lodging-houses, although he feared such might be the case. He had hoped that supplementary provision would have been made by the guardians of the district boards, and to some extent that had been done, but he deeply regretted to say that in other cases exertions that were made were paralysed by threatened legal proceedings. He was glad to announce that the Metropolitan Asylums Board were exerting themselves to the utmost to provide accommodation for 300 or 400 convalescents, which would considerably relieve the hospitals; and he might add that the Local Government Board were in communication with the managers respecting immediate further provision.

Correspondence.

LIVER ABSCESS AND DYSENTERY.

To the Editor of THE LANCET.

SIR,—In THE LANCET of May 7th, 1881, in which you refer to the recent discussion at the Pathological Society on liver abscess in connexion with dysentery, it is remarked that I reaffirmed the opinion that the solitary abscess is usually the outcome of primary hepatitis, independently of dysentery, which may or may not be a concomitant, but that "many of those who spoke took the contrary view." It is further stated that you "believe that there is evidence of primary hepatitis even in cases of hepatic abscess arising in our climate under certain conditions where there has been no trace of intestinal ulceration, and where everything pointed to primary inflammation, or where, in some cases, thrombosis with necrosis of the liver was the cause of the abscess. In other cases a single abscess may result from a local infective process from diseased intestines. Such cases, however, may be originally produced by the fusion of several 'multiple' foci of secondary inflammation; but whether this be

so or not they do not strictly come under the category of 'tropical abscess,' being linked etiologically with those cases of disseminated suppuration of the liver which are admitted by all to follow upon ulceration of the intestines, as well as upon other sources of pyæmic infection." With your permission I should like to make a few remarks on the subject, in confirmation of the views you uphold. In the first place, I would say that tropical abscess, though generally large and single, is not invariably so; that, though frequently associated with dysentery, it is often altogether independent of that disease, though co-existent in certain cases, and probably due to the same climatic cause as dysentery; yet that there is no direct connexion between them, and that in a large proportion of cases there is no evidence of dysentery having existed during any period of the disease. The fact probably being that this form of liver abscess is generally independent of the bowel ulceration, though due to the same cause. It might be further stated that it would be impossible to predict, if a number of men were exposed to malarial and tropical influences, how many would suffer from dysentery alone, from remittent fever, from liver abscess, and other hepatic disease; or how many from a combination of all these states.

Liver abscess occurring in this country in persons who have not been exposed to tropical influences is probably due to absorption from ulcerated abdominal viscera, or to pyæmia from other causes, especially such as wounds or injuries about the abdominal or pelvic viscera. These are certainly not identical with dysenteric liver abscess, though analogous to one form of that disease. Probably when they occur, there may have been some morbid condition of the liver substance, which predisposes it to suffer. Doubtless many of the liver abscesses met with in this country occur in persons who have been in the tropics, and may fairly be referred to climatic causes or to dysentery; but I imagine cases of apparently similar character occur from time to time in all countries, that are quite independent of such influences; and that the explanation which refers them to bowel ulceration (not dysenteric) is frequently correct; and I can hardly doubt that even the large, generally single, abscess conventionally called "tropical," may also occasionally be seen in our own and other temperate climates. After all, perhaps, there may not be so very much difference of opinion between the views of those who have observed at home and of those who have observed abroad.

The following are the forms of liver abscess with which my experience has made me acquainted:—

1st. Abscess, generally large and single, though occasionally double or even multiple, may occur in any part of the liver; it frequently forms with much constitutional disturbance: pain, swelling, pyrexia, and sweating, though sometimes these symptoms are almost absent, and so insidious is the process that it is only detected when it discharges its contents through the lung, bowel, or stomach; or when by opening into the peritoneum it causes death; or not until after death, when it is discovered during post-mortem examination. This form of abscess has a tendency to point and open in any of the directions above mentioned; but it also frequently approaches the abdominal or thoracic walls and opens, or is opened, with favourable results, either in the epigastric or hypochondriac regions, below or between the ribs, in front or behind. Many cases that have opened spontaneously through the lung, stomach, and bowels, recover perfectly; not so, I fear, when the pericardium or peritoneum are invaded; unless, indeed, in some rare cases where portions of those cavities have been isolated by the inflammatory process, and the effusion thus limited within the bounds so formed. Recovery after paracentesis is sufficiently frequent to render cases in which it is performed, at the right period, very hopeful; though, of course, they are necessarily always cases of great anxiety as well as uncertainty. This, the so-called tropical abscess, from its greater prevalence in tropical or subtropical countries, is due then to climatic causes, such as heat, malaria, over-stimulation of the liver from errors in food and drink, and the greater work thrown on the organ under the circumstances above named. It is generally unaccompanied by, and apparently independent of, dysentery or other form of bowel complaint, though it may be associated with that disease or with malarial fever; but, according to my belief, though due to the same *cause* it is *coexistent with*, rather than *dependent on*, them, and it frequently happens that post-mortem examinations confirm this view, showing the absence of evidence of existing or past dysenteric ulceration. But, assuming that the poison, or the cause of dysentery whatever it be, is of a specific character, there is, I think, some ground for believing that it may act *directly* on the liver, irrespective of transference from the intestines, and so give rise to a true dysenteric hepatic abscess. Such cases, however, I should regard as exceptional.

Tropical liver abscesses, I would remark, sometimes assume a very chronic and quiescent condition, and may remain for months, perhaps years, causing failing health, of which the true nature is almost unsuspected until some fresh disturbance or inflammation excites them into activity, though they are not always difficult of diagnosis. There is good reason for believing also that they sometimes dry up and disappear spontaneously by absorption. I have seen cases in which, I believe, this has occurred. There is, in my opinion, therefore, reason for believing that a large number of cases of so-called tropical liver abscess are independent of dysentery, and these are generally, though not invariably, solitary.

2nd. Abscesses frequently, not however invariably, multiple, of various sizes, from a pea to a hen's egg, or larger, scattered about throughout the parenchyma of the liver, and containing pus, puriform matter, and débris of disintegrated liver tissue, accompanied by, or following and *caused by*, dysentery, are not uncommon. They are, I believe, the result of either direct absorption of septic matters from the ulcerated bowel, through the portal vein, or are due to the more general condition of pyæmic poisoning which is set up by the disease, just as happens in pyæmia from other causes, such as wounds, injuries, and operations, especially when they involve the abdominal or pelvic viscera. I have frequently, in India, seen these pyæmic abscesses scattered about in the liver, lungs, kidneys, and spleen, in varying numbers, from one to many, after death from pyæmia, where there was not a trace of dysenteric ulceration in the bowel. I would remark that though most frequently multiple they are occasionally solitary, and that the mere fact of being single does not invalidate the probability of a pyæmic origin. I would also call attention to the pathology of these so-called abscesses, which are really at first no abscesses at all, but local deaths; necrotic patches of liver tissue caused by embolism or pyæmia. These patches of dead tissue are surrounded by congested tissue, and ere long by suppuration, the purpose of which is to throw off the dead tissue. Such abscesses when cut into are found to consist of dead tissue and sanies, with puriform matter, and after a certain time, pus; just as in the case of a tropical boil, where a quantity of pus forms round a nucleus of dead areolar tissue, killed by thrombosis. When life is prolonged and inflammatory changes have had time to take place, these necrotic centres or foci become the nuclei of abscesses of considerable size. Needless to say that such liver abscesses are in the last degree dangerous, perhaps generally fatal. I think it would be found, if statistics were appealed to, that they do not support the theory that ordinary tropical hepatic abscess is due to dysentery.

Moore, in the "Annals of Military Surgery," says that eight observers out of twelve reported 1532 cases of dysentery, with 295 cases of liver abscess, or 18 per cent. Other four observers gave a ratio of 39 per cent., or 52 cases of abscess out of 131 of dysentery. Macpherson gives a record of 13 per cent. in the General Hospital of Calcutta. Waring gives 663 cases of fatal dysentery, with hepatic abscess in 149, or 23·54 per cent.; Mr. Eyre, 22·18 per cent.—i.e., 118 cases—with 27 cases of abscess; Mr. Moore, 127 cases, with 27 of abscess, or 22·05 per cent. As Moore says, "If the theory of the formation of hepatic abscess be sound, how is it that 77 per cent. of dysentery had no hepatic disease?"

In conclusion, I would remark that the researches of Indian observers such as Morehead, Macpherson, Maclean, Moore, Martin, Parker, and others, seem to show that hepatic disease is a not unfrequent complication of dysentery, that it is also, and not unfrequently, caused by it. The weight of testimony is, as you say in THE LANCET, in favour of the view of a primary hepatitis, independent of dysentery, and that the same may occur under certain conditions, even in our own country, where there have been no traces of intestinal ulceration, and where all pointed to primary inflammation. The subject is one well worthy of further discussion, both in its European and tropical aspects, and I should be glad to think that the distinguished physicians who discussed it so ably and impartially last Tuesday may deem it worthy of further notice next session.

Yours faithfully,

May 8th, 1881. J. FAYRER.

OÖPHORECTOMY.

To the Editor of THE LANCET.

SIR,—In reference to my paper on Oöphorectomy, which you did me the honour to criticise in last week's LANCET, I am quite aware that more value would attach to it had I written out more elaborate details of the conditions that existed and were considered to call for the operation. The ultimate effects of the operation can, of course, only be judged of after a longer period than at present has elapsed. I hope in the future to give the results in each case so far as they can be ascertained at the time.

You speak of my unsuccessful cases not having been published. I can only say that up to this date I have had twenty-eight completed oöphorectomies (both ovaries removed), one where only one ovary was removed, and one incomplete case, that of E. H——, mentioned in my paper and referred to by you, also published by me somewhat in detail in a pamphlet last year. These are the whole of my cases, and the patient in each instance recovered.

As showing the difficulty of drawing a line between ovariotomy and oöphorectomy, my last but one abdominal section was commenced with the view of an oöphorectomy being performed. The left ovary was removed; the right turned out to be an ovarian cyst, completely adherent to the pelvic brim and about the size of a Tangerine orange. Under which class of operations should this have come? My friends, Dr. Edginton, who assisted me, and Dr. T. Richards, who kindly sent me the case and who was also present, on being appealed to immediately after the operation, said that it was clearly an ovariotomy. Unfortunately this patient died of septic peritonitis; but I think her death will go to the debit side of ovariotomy rather than of oöphorectomy.

I am, Sir, yours truly,

Birmingham, May 3rd, 1881. THOMAS SAVAGE.

THE OLD UNIVERSITIES AND THEIR MEDICAL DEGREES.

To the Editor of THE LANCET.

SIR,—I think the majority of medical students will feel grateful to you for your article in THE LANCET of April 9th, on the difficulties of obtaining degrees in medicine at our English Universities. I think, if the usual career of a medical student be considered, the cause of these difficulties will be found. Taking the average medical students who, after passing the Preliminary Examination of the college or hall, enter one of the London hospital schools and commence their studies for the Primary Examination of the Royal College of Surgeons, we may suppose in eighteen months all the best men to have passed, and it is at this time (and not before) we hear them expressing their regret that it is almost impracticable for them to proceed to a degree in our English Universities. Where does the evil exist? For answer one has but to look at the regulations, and list of students, of the University of Durham, which is the only English University that has recognised and is attempting to remedy it. In these regulations we find—

1. That only one year's residence is required for a degree, the said one year to be spent in a school which is about the best provincial school in England.

2. The Preliminary Examination in Arts of other bodies is recognised *pro tanto*, and the extra subjects required may be passed at any time before one presents himself for the final Professional Examination for the degree.

3. The fees are moderate and carefully arranged, so that a degree can be obtained with very little more expense than the licence of the College of Physicians of London. And who do we find availing themselves of these well-arranged regulations? Chiefly the class of students I name, for on turning over the list of the 177 students for this year studying at Newcastle, I find that out of this number there are thirty-five qualified men, one of whom is a Fellow of the Royal College of Surgeons, and several are Licentiates of the Royal College of Physicians of London and Edinburgh. But why do we find London men putting themselves to the inconvenience of residing in Newcastle when they might obtain a degree at home of far greater worth in the eyes of the medical profession? I do not for one minute believe that it is because they think they will obtain an easier examination at Durham, for its examinations are far from easy, and will well bear comparison with those of Oxford and Cambridge.

In answer to this question I think I may safely assert that if the London University would recognise medical studies pursued previous to passing the matriculation examination (provided always that the candidate was during the time on the Student's Register), and would recognise the Arts Examinations of other bodies *pro tanto*, we should at once see a great improvement in the number of students working heartily for the splendid degree that University gives.

Of the other Universities I cannot say much. Of Oxford I know nothing personally, but of Cambridge I may say this—that the practical hospital teaching is such that the majority of Cambridge students know no more of practical medicine and surgery, after four years' attendance on the practice of Addenbrooke's hospital, than an average London student knows after the first six months of his attendance in the wards of his hospital.

It may seem presumption on my part to attempt to advise the London University in this matter, but when one hears, as I did the other day, one of the best men of the Middlesex Hospital speak of going to Edinburgh for a degree, surely there is something wrong in London which is right in Edinburgh. I am, Sir, yours obediently,

April 12th, 1881. A CAMBRIDGE UNDERGRADUATE.

STATISTICS OF COLOUR-BLINDNESS AMONG RAILWAY EMPLOYÉS.

To the Editor of THE LANCET.

SIR,—In an editorial notice of the examination of *employés* in India in your number for Oct. 2nd, 1880, p. 550, you mention it as a curiosity that so few Europeans there were found colour-blind. I would respectfully question whether this was not wholly due to the faulty method of examination which has prevailed till within a very short time, and still prevails in England, except with a few gentlemen among you who have taken up Professor Holmgren's method quite recently. From these gentlemen I hear that tests by proper methods show the same percentage in males as elsewhere in the world.

Even expert examiners using the best methods will report very varying percentage. I have been through several classes of fifty each in our schools without finding any colour-blind, and then in the next class there would be enough to bring the per cent. up to the average—viz., four. This last week in a high school in Salem, among seventy-two boys I found five colour-blind, but there were two colour-blind families represented: one of two brothers whom I had known as being defective from their mother having sent me the worsteds they confounded, which were Holmgren's green and a reddish-brown; and two of seven brothers, the others of whom I have not yet tested.

Recent experience has shown in this country that on railroads where the *officials* had tested their *employés* as instructed by railway commissioners, *ophthalmic surgeons* afterwards found 7 per cent. colour-blind and 14 per cent. with defective visual power. I do not think that science can accept any statistics unless we know the precise methods used and how these were carried out, and by whom.

I remain, Sir, respectfully yours,

Boston, U.S.A., April 4th, 1881. R. JOY JEFFRIES, M.D.

"THE LAWS OF THERAPY."

To the Editor of THE LANCET.

SIR,—I do not care to join in the discussion going on in your pages as to whether "orthodox" practitioners should meet homœopathists in consultation. That is a question that does not interest me in the slightest degree, for during a practice of now nearly forty years, I have never had the slightest wish to obtain the opinion of an "orthodox" physician on the subject of the medical treatment of a case. But I confess I am very much interested by a statement made by yourself in a note appended to Dr. Flint's letter in your impression of May 7th. You there say: "Neither ipecacuanha, Dover's powder, nor picrotoxin acts homœopathically or allopathically; the action is in each case strictly

in accordance with the known laws of therapy." Pray oblige a searcher after truth, and direct me to where I may find "the known laws of therapy" set forth. That ipecacuanha in large doses will cause vomiting, and in small doses will sometimes cure it, I know not only from Ringer but from frequent experience, and this is undoubtedly an illustration of the homœopathic rule of treatment; but I quite agree with you that the fact itself does not show that the ipecacuanha acts homœopathically. We don't know how a remedy selected according to the homœopathic rule for treatment acts, and though some of us have tried to guess, our success has not been great in this direction. It would therefore afford us much satisfaction if you will kindly show what are "the known laws of therapy" in accordance with which ipecacuanha acts in curing, say, a case of vomiting. We homœopathists only see in our formula *similia similibus curantur* a rule for the employment of medicines in disease that was discovered, we may say, empirically. If "the known laws of therapy" will explain to us how medicines act in the cure of disease, we shall be only too happy; and on this ground, which would be a real scientific ground, we might perhaps find a happier *modus vivendi* with our "orthodox" brethren than we at present possess.

I remain, Sir, your obedient servant,

London, May 9th, 1881. R. E. DUDGEON.

*** It is inconceivable that Dr. Dudgeon does not recognise the well-known fact that *all* drugs act differently,—and, as it may seem to the unscientific, on totally opposite lines—in different doses. It is so with every form of vital function, and it is only natural that it should be so with the action of drugs on the organism. Stimulation of a nerve produces first excessive activity, and then an arrest of its special function: and a small dose of a drug produces one effect, while a larger dose produces a different and, almost uniformly, an apparently opposite, effect. The two "effects" are correlated, and mutually dependent, being governed by the same law. It is scientifically absurd to call one stage of the process a manifestation of the operation of "like" and the other of "contradictory." It would be just as reasonable, and no more so, to predicate a "homœopathic" or an "allopathic" property of nervous tissue because it acts on muscular tissue by stimulating it to contraction in one stage, and arrests its action and relaxes in another. No special work expounds this doctrine, because it is the universal law of therapy.—ED. L.

IRELAND.

(From our own Correspondent.)

As mentioned by you last week, Mr. John K. Barton will be a candidate for the Vice-Presidency of the Royal College of Surgeons in Ireland, a probability to which I drew attention three months since. It was rumoured that two candidates would come forward, but it is likely that Mr. Barton—than whom a more eligible candidate could not be selected—will be returned unopposed. Mr. Chaplin, of Kildare, the present vice-president, will necessarily become president next June, and no doubt exists that the great majority of the Council will be re-elected.

An election for examiners in the College of Surgeons took place last week, when all the outgoing members of the Surgical Court, although opposed by four other candidates, were re-elected. The examiners in Midwifery were also re-elected, and the only change occurred among the examiners in General Education, where Mr. Davys was replaced by Mr. Tweedy. At the last general meeting of the Fellows it was resolved that the Council be recommended to take such steps as might be necessary for the holding of the general annual meeting of the College on the Saturday preceding the first Monday in June of each year, in order that the attendance of the Fellows who reside at a distance might be encouraged. With a view to carrying this into effect the Council have recently issued a circular to the Fellows requesting them to state whether they would prefer that the meeting of the Fellows to receive and discuss the annual report of the Council should take place, as heretofore, on the last Monday in May, or the Saturday preceding the first Monday in June. It is probable that the latter arrangement will be selected by the College.

In the proposed scheme of Education and Examination of the Royal College of Surgeons, which most probably will be adopted, as a large majority of the Council are in favour of it, the student who desires to obtain the licence of the College must pass four professional examinations. The candidate will be examined in anatomy at each of the four examinations, a regulation which, combined with the extra expense which will be incurred under the new arrangement, will undoubtedly lessen the number of applicants for the diploma in surgery as compared with those seeking admission under the present system.

The Scheme of Organisation of the Royal University of Ireland as adopted by the Senate has been issued as a Parliamentary paper. The regulations for the medical portion of the curriculum were published in THE LANCET (pp. 504–641), and no alteration of the arrangements there laid down has taken place. Some slight additions may, however, be noticed; for example, besides the necessary hospital attendance, candidates for medical degrees will be required to produce certificates of personal attendance on fever cases; of having compounded medicine for at least three months; of practical instruction in vaccination, and attendance on a course of lectures not less than twenty-five in number, and clinical instruction on mental diseases. The fee for the examination for the M.D. degree has been fixed at £5. Finally, the Senate require of each school seeking recognition a guarantee that in each class a roll shall be kept, which shall be called at the commencement of each lecture, the presence or absence of each student being thereon marked, such rolls to be open to the inspection of any person or persons whom the Senate may appoint for the purpose.

At a meeting of the Governors of Steevens's Hospital, Dublin, held last week, George H. Porter, M.D., Surgeon to the Queen in Ireland, was elected consulting surgeon to the hospital, in the vacancy caused by the decease of Mr. Christopher Fleming.

At a recent meeting of the Managing Committee of the Cork-street Fever Hospital the registrar reported that the hospital had been in a favourable state during the past month, fever having considerably abated, and small-pox entirely disappeared, with the exception of one case—a child, who appeared to have contracted the disease in London,—and which terminated fatally after four days in hospital. Plans are being taken for the formation of a new convalescent home, for which the Committee hope to obtain the necessary funds, and be enabled to proceed with its construction during the summer.

The Cunningham Gold Medal of the Royal Irish Academy has been conferred on Mr. Howard Grubb, in consideration of the eminent services rendered to science by improvements in the construction of telescopes.

The death is reported of Surgeon-Major Walter Blake, A.M.D., at Queenstown, on the 7th inst.

PARIS.

(From our own Correspondent.)

A NEW bi-aural stethoscope has been presented to the Academy of Medicine by Dr. Constantine Paul. The chest piece is surrounded by a circular box which is connected by a tube with an india-rubber ball. Upon aspirating with the ball the box when placed upon the skin adheres like a cupping glass, and the rarefaction of the air in the circular sucker is said to increase the intensity of the sounds. The instrument is completed by a Y-shaped metallic branch which emerges from the apex of the chest-piece, and which terminates in two flexible tubes for insertion in the ears. Another novel arrangement which can be made in the apparatus is the addition to each terminal tube of a secondary dichotomous metallic branch, to which are again attached a couple of terminal tubes. The further development of this system of dichotomous branching enables any number of auscultators to listen simultaneously to the same sound.

Antiseptic surgery is gradually gaining favour amongst French operators; but an occasional manifestation against it is made by some of the older members of the profession. At the Société de Chirurgie, M. Boinet has recently returned to the same objections that were advanced some two years

since by M. Lucas-Championnière. In the first place, he claims that the credit of the application of carbolic acid in surgery is not due to Lister, but to the French school, and having demonstrated this, presumably to his own satisfaction, he goes on to affirm that antiseptic surgery is both useless and dangerous. This is attempted to be proved by two facts. On one occasion M. Boinet used antiseptic dressings in a case of ovariotomy and the patient died, "probably on account of the irritation of the peritoneum by the carbolic acid."

In a recent work on the effects of electricity in gynecological practice, Dr. Georges Apostoli comes to the following conclusions. Faradisation of the uterus is always inoffensive, it is constantly calming, and sedative. After parturition it shortens convalescence, accelerating the involution of the uterus, which, even with deep palpation, cannot be felt above the pubis after the sixth or eighth day. Faradisation is the best preventive treatment of uterine flexions and versions usually occurring after delivery. It seems to diminish the lochial discharge; its action as compared with ergot is quicker and more energetic.

Obituary.

R. W. FALCONER, M.D., D.C.L. DURH.

RANDLE WILBRAHAM FALCONER was the son and grandson of physicians of considerable eminence and fame in the ancient city of Bath, and had the advantage of inheriting and the honour of perpetuating a good name. Receiving his professional education at Edinburgh, he took his M.D. degree at that University in 1839, and at first settled in practice at Tenby, but after eight years moved to his old home, and was there busily engaged up till the very day of his death. He early became connected with the General and Mineral Water Hospital at Bath, and published some works on the value of the Bath waters in rheumatism and allied affections. Although busily engaged in a large and successful practice, Dr. Falconer was greatly interested in, and devoted a good deal of attention to, archæology and biological science, and also took a prominent part in local public affairs. He filled the office of mayor in the year 1857-8, and at the close of his term of office was unanimously re-elected. He was a prominent member of the British Medical Association, and held successively the offices of treasurer, president of the council, and president.

His death took place quite suddenly, while he was actively engaged in the practice of his profession. For some time past symptoms of a weak heart had shown themselves, and not long ago a serious syncopal attack gave warning of the approaching end. On the 5th inst. Dr. Falconer felt wearied before he had quite finished his rounds, and had to rest awhile at his club before proceeding home. Quite early next morning he was seized with dyspnœa, and in spite of all the skilful efforts of his medical friends, the prostration steadily increased, and he died the same evening. He had attained the age of sixty-five.

In addition to his university degree and the membership and fellowship of several societies, he was F.R.C.P. Lond. and D.C.L. Durh. His sudden removal from the midst of his active duties has caused a general feeling of regret, not alone among his patients, who have lost a wise adviser and friend, but throughout all classes in the city, for in many ways he proved himself a good citizen, and his memory will long be cherished with affectionate respect.

WM. SIMPSON, M.R.C.S., L.S.A.

WM. SIMPSON of Bradmore House, Hammersmith, has joined the great majority. Although his name may be known to but few of the present generation, his career has not been an undistinguished one. He entered at the united hospitals of Guy's and St. Thomas's in 1820, became a Licentiate of the Society of Apothecaries in 1824, and Member of the College of Surgeons in 1825. He commenced practice in Hammersmith, where he met with deserved success, his kindness to the poor, and disregard of his own safety in succouring the sick during the cholera epidemic, rendered his name a household word with those among whom he laboured. In spite of an increasing practice he found time for literary work. He contributed many cases to THE LANCET, which was then a young journal. He was editor and proprietor of *The Scalpel*, but the success of that paper did not warrant its continuance beyond a year or two. He also brought out "An Aid to Students for the Examination of the Apothecaries' Hall."

In 1850 he retired from practice and devoted himself to politics. He made his first and only appearance on the hustings at High Wycombe in 1852, when he contested the seat in the Liberal interest, but was beaten by Sir Geo. Hy. Dashwood. Though beaten, however, he was not disgraced, and as a mark of their appreciation of the zeal and purity with which he contested the election, the electors presented him with a magnificent silver cup.

In 1866 Mr. Simpson sustained an irreparable loss in the death of his wife, who had been his faithful companion for forty-five years. A severe illness at this time brought on paralysis agitans, and though the mind was as clear and active as ever the body was to all intents and purposes dead; but his cheerfulness never forsook him. Nursed by his niece, Miss Roy, who also read the daily papers to him, and the new books as they came out, for fourteen years he remained in this state of helplessness, until relieved by death on April 24th, 1881.

SAMUEL JOHN TRUMAN, M.R.C.S.

MR. TRUMAN, whose death took place at New Basford, Nottingham, on March 2nd, was the fourth son of Beckett Truman, Esq., who practised in Nottingham upwards of fifty years. He studied at Guy's Hospital, became house-surgeon in the Manchester Infirmary in 1868, and afterwards of the Lincoln General Dispensary. He then purchased a practice at Rippingale, in Lincolnshire, where he married. Five years since, owing to the delicate health of his family, he took up a portion of his father's practice in New Basford, where he soon became popular. His was one of those anxious and painstaking temperaments which, combined with a pleasing manner, soon establishes a cordial sympathy with patients and friends, and obtains a wide respect, but at the expense of a rapid wearing out of the constitution. Frequently, after his professional rounds, Mr. Truman reached his home exhausted and faint, and on the 1st of March he was brought back in his carriage in a state of syncope, from which, however, he rallied. He was attended by Messrs. Barnie and Macdonald, but expired suddenly early on the following morning. At the inquest the medical evidence was to the effect that death was caused by "pericarditis and syncope."

His sudden death, at the age of thirty-five, was regarded as a public calamity in the neighbourhood, and over a thousand persons sought and obtained a "last look" at their departed friend and doctor. Amongst these were several who were former patients in the Manchester Infirmary.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed the Primary Examination in Anatomy and Physiology at meetings of the Board of Examiners on Monday, Tuesday, and Wednesday last:—

H. H. Brown, Aberdeen; Thomas Birt, John F. Vince, Edwin W. D. Kite, and H. Simms, Birmingham; John F. L. Whittingdale and Walter Dawson, Cambridge; Matthew Johnston, John T. Walker, Charles N. Benaley, Morris J. Williams, Francis J. Stevens, Alfred A. Lankester, William C. Dalley, Thomas Jones, Alfred D. Edginton, and James H. Menzies, St. Bartholomew's Hospital; Robert K. Peacock, Edinburgh; Edward H. Armitage, James C. Bates, Arthur C. Deare, Hugh Lamb, Francis Heatherly, George E. Stewart, and Alfred E. Taylor, Guy's Hospital; Edward Stewart, Middlesex Hospital; William Turnbull, James M. Robson, and Frederick M. Blackwood, Newcastle-on-Tyne; Robert C. Bruce, Edinburgh and Charing-cross Hospital; Richard A. Jackson, St. George's Hospital; Edwin Roberts, Leeds; John Williams, Liverpool; Cadwallader E. Evans and F. W. Weir, Bristol; Thomas G. Parrott and Edward S. Hasell, King's College; F. de C. Skeete, University College; L. P. Mumby, Westminster Hospital.

[In the list published last Saturday of gentlemen who passed the Primary Examination at the College, for "William Fowler" read "Walter Fowler."]

UNIVERSITY OF DURHAM.—At the First Examination for the degree of Bachelor in Medicine, concluded on

Friday, April 29th, the following candidates satisfied the Examiners:—

Austen, Henry Hinds, M.R.C.S.	Paley, Wm. Edmund, F.R.C.S.E.
Beatley, William Crump.	Price, William Elliott.
Brown, Arthur Tresco Franklyn.	Prowde, E. Longstaff, M.A.Cantab.
Brown, Richard.	Ridley, George Walter.
Cock, Frederick W.	Salvage, John Valentine.
Doudney, George Herbert.	Shuter, Charles Yalden.
Hardie, Robert.	Spicer, Frederick.
Hepworth, Arthur.	Tomson, Walter Bolton.
Howitt, George Grahamsley.	Turnbull, William.
Hudson, Theodore J., L.R.C.P., M.R.C.S.	Trlay, Abelardo J., B.A., L.M. & S.
Hutchinson, Joseph Armstrong.	Vise, Christopher, M.R.C.S.
Lingard, Alfred, M.R.C.S., L.S.A.	Walker, Basil Woodd, L.R.C.P., M.R.C.S.
Morgan, Llewellyn Arthur.	Wigan, Charles Arthur.
Norry, William Augustus.	

Thirty-eight candidates entered for the examination, two withdrew, and nine were referred to their studies for a period of six months.

FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.—At the April sittings of the Examiners the following gentlemen passed the Primary Examination:—

John Cable, J. Engles, D. P. Gage, H. G. Hughes, Robert Jope, H. C. Long, Wm. Middleton, W. Morris, Robert Rudland, R. W. Sclater, H. Sinclair, Oliver Sunderland, and Hugh Thomas, Glasgow; J. H. Blayney, Manchester; T. G. Hull, Leeds; J. F. Hobbes, Birmingham.

The following passed the Second Professional Examination and were admitted Licentiates:—

Bridgman, H. A., Ramsay.	Hutchison, T., Barnard Castle.
Dell, J. F., Herts.	Heron, A. W., Jamaica.
Donkin, Charles, Weybridge.	Ramsay, E. C. A., Fleetwood.

ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH AND FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.—At the April sittings of the Examiners the following gentlemen passed the Primary Examination:—

P. P. Shaw, Glasgow; G. D. Trevor-Roper, Manchester.

The following passed the Final Examination and were admitted Licentiates of both bodies:—

Guest, A. H., Glasgow.	Murdoch, Alex. M., Glasgow.
Horn, Robt. J., Atterborough.	Thomson, A. T., Metheringham.

APOTHECARIES' HALL.—The following gentlemen passed the examination in the Science and Practice of Medicine, and received certificates to practise, on May 5th:—

Damania, Bhicajee Jivajee, Bombay.
Wilde, Frederick, Euston-road.

IT is announced that the Prince and Princess of Wales will be the guests of the Treasurer of St. Bartholomew's at a conversazione to be given at the hospital on the 27th inst.

THE Duchess of Edinburgh will open the bazaar in aid of the building fund for the extension of the National Hospital for the Paralysed and Epileptic, Queen-square, to be held at the Duke of Wellington's Riding-school, Knightsbridge, upon the 17th, 18th, and 19th of May.

AT the thirty-third anniversary festival of the City of London Hospital for Diseases of the Chest, held at the Cannon-street Hotel on the 8th inst., donations to the amount of £2050 were announced. It was stated that £9000 were required to carry on the work of the institution on its present scale, and the annual subscriptions represented only £2400 of this sum.

ST. MARY'S HOSPITAL.—On Wednesday the annual dinner in aid of the funds of this hospital was held at Willis's Rooms, Earl Stanhope in the chair. The munificent bequest of £25,000 by the late Mr. Stanford, for the purpose of enlarging and improving the building, was mentioned; and in reference to the maintenance of the new wing, the chairman suggested that paying wards, similar to those in use at St. Thomas's, should be established, and that the payment of a certain sum should be required of out-patients. Subscriptions to the amount of £650 were announced.

THE will and codicil of Dr. William Hardwicke, coroner for Central Middlesex, late of Holder's-hill-house, Hendon, who died on the 15th ult. at Fulham-place, Paddington, were proved on the 19th ult. by Mr. Arden Hardwicke, the son, and Mr. J. W. Marchant, the executors, the personal estate being sworn under £4000. The testator bequeathes to his wife, Mrs. Sophia Hardwicke, a pecuniary legacy of £250; the residue of his real and personal property he leaves upon trust for her for life, and then for all his children in equal shares.—*City Press.*

CANTOR LECTURES.—The fifth and concluding course of Cantor Lectures for the present session, at the Society of Arts, will be delivered by Mr. R. Brudenell Carter, on the subject of "Colour Blindness, and its Influence on Various Industries." The first of the course of three lectures will be delivered on the 16th inst. This lecture will deal generally with the subject. The second will treat of methods of testing for colour blindness, the prevalence of the affection, mistakes of the colour blind, and methods of endeavouring to counteract the defect. The industries chiefly affected by colour blindness will be dealt with in the third lecture.

THE NIGHTINGALE FUND.—The Council of the above Fund held their annual meeting on Friday last, at the Nightingale Home, St. Thomas's Hospital, when the report on the Nurse-training School for the year 1880 was read, and addresses were delivered to the probationer-nurses. Sir Henry Verney, Bart., M.P., the chairman of the Council, who was accompanied by Lady Verney, presided, and was supported by Mr. W. Bowman, F.R.S., Sir William M. Muir, K.C.B., Mr. W. Rathbone, M.P., members of the Council; Mr. Henry Bonham Carter, the secretary; Mrs. Wardroper, the lady-superintendent of the School; and Mr. Croft, F.R.C.S., the medical instructor. There were present also the Treasurer of St. Thomas's Hospital, several of the medical staff, and other visitors. The report mentioned that during the year 1880 twenty-five probationer-nurses had completed their training, so as to entitle them to be placed on the register as certified nurses, and had been appointed to situations. Thirty-nine admissions to the school had taken place, and, some having resigned or been discharged, there were thirty-two in residence at the end of the year.

PRESENTATIONS.—Mr. W. T. Dinnen, of Holyhead, has received a gratifying token of the esteem of the inhabitants of Holywell, where he had resided as house-surgeon to the Flintshire Dispensary. The testimonial was in the form of a diamond breast pin and an illuminated address expressive of the best wishes of the donors for Mr. Dinnen's welfare in his new sphere of practice.—The parishioners of Newhills, Dyce, and Newmacher, Aberdeen, have presented Dr. John Carlyle with a gold watch and an oil portrait of himself on the occasion of his leaving the neighbourhood.—The senior house-surgeon of the Torbay Hospital, Mr. G. W. Hamilton Cumming, having resigned his appointment in order to practise at Wick, Bath, his friends took advantage of the occasion to present him with a testimonial to mark their sense of his conduct during the short time he had been amongst them. This was subscribed for by the weekly board on behalf of the hospital, and by the members of the board, the medical staff and the officials, nurses, and servants of the establishment. The presentation consisted of a silver and oak tea tray, salad bowl, and other valuable articles.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning, at the latest.*

ALLEN, A. H., F.C.S., has been reappointed Public Analyst for the Borough of Sheffield.

BERNSTEIN, Dr. M. J., has been elected Senior House-Surgeon to the Borough Hospital, Birkenhead, vice Dr. Baker, resigned.

BIRD, T., M.A., M.R.C.S.E., has been appointed Instructor in the Use of Anæsthetics at Guy's Hospital.

BREW, H. B., L.R.C.P.Ed., L.R.C.S.I., has been appointed Medical Officer for the Bray (co. Dublin) Dispensary District.

BRIGGS, H., M.B., M.R.C.S.E., has been appointed Resident Medical Officer to the Liverpool Royal Infirmary, vice R. H. Jones, resigned.

BROWN, E., L.R.C.P.L., M.R.C.S.E., has been appointed Medical Officer for the Braughing District of the Bishop Stortford Union.

CLARKE, Mr. F. H., has been appointed House-Physician to the Western Infirmary, Glasgow.

DAVIDSON, Mr. A., has been appointed House-Physician to the Western Infirmary, Glasgow.

DICKSON, Mr. G., has been appointed House-Surgeon to the Western Infirmary, Glasgow.

DOWNIE, Mr. J. W., has been appointed House-Surgeon to the Western Infirmary, Glasgow.

FINCH, H., M.D., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer of Health for the Colchester Urban Sanitary District, vice Waylen, resigned.

GLAISTER, J., M.B., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Lecturer on Medical Jurisprudence in the Royal Infirmary School of Medicine, Glasgow.

GRIFFITH, J. DE B., M.B., M.Ch., has been appointed Resident Medical Officer at the Yarra Bend Lunatic Asylum, Melbourne.

HOPKINS, F. F., L.R.C.P.Ed., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for the First District of the Aston Union.

HUNT, Mr. J. M., has been appointed House-Surgeon to the Western Infirmary, Glasgow.

KER, Miss, L.M., has been elected Senior House-Surgeon to the Hospital for Sick Children, Birmingham.

KINDER, R., F.F.P.S.G., has been reappointed Medical Officer and Public Vaccinator for the Haddenham District of the Ely Union.

LITTLER, J. W., M.R.C.S.E., L.S.A.L., has been appointed one of the Surgeons to the Manchester and Salford Provident Dispensary Association (Medlock-street Branch).

MCDONNELL, M. A., M.D., M.Ch., has been appointed Medical Officer for the Workhouse, Toxteth-park, Liverpool, vice Lyster, deceased.

MALLEY, A. C., M.B., B.Ch., has been appointed Medical Officer for the Third District of the Church Stretton Union.

MASON, J. W., M.B., C.M., &c., has been elected Medical Officer of Health for the Borough and Port of Kingston-upon-Hull, vice J. Fearne Holden, deceased.

MOORE, H. O., M.B., has been appointed Public Vaccinator for Dandenong, Australia.

ORMSBY, G. H., L.R.C.S.I., L.K.Q.C.P.I., L.M., has been appointed Medical Officer to the Odd Fellows' Dispensary, Hull.

PETTINGER, G. W., M.R.C.S.E., L.S.A.L., has been reappointed Medical Officer of Health for the Stretford Urban Sanitary District.

PORTER, G. H., M.D., M.Ch., F.R.C.S.I., has been appointed Consulting Surgeon to Steevens's Hospital, Dublin, vice Fleming, deceased.

PRIEST, J. D., M.R.C.S.E., L.S.A.L., has been appointed House-Surgeon and Secretary to the Hertford General Infirmary, vice Vlieland, resigned.

PRICHARD, Mr. R., has been appointed House-Physician to the Western Infirmary, Glasgow.

SMITH, J. M., M.B., C.M., has been appointed House-Physician to the Western Infirmary, Glasgow.

WAITE, W. H., L.D.S. R.C.S.I., has been appointed one of the Honorary Dental Surgeons of the Dental Hospital, Liverpool, vice Phillips, resigned.

WHITE, A., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer for the Crigglestone and West Bretton Districts of the Wakefield Union.

YOUNG, J. M., M.A., has been appointed House-Surgeon to the Western Infirmary, Glasgow.

Births, Marriages, and Deaths.

BIRTHS.

BENNETT.—On the 7th inst., at Upper Berkeley-street, Portman-square, the wife of H. Selfe Bennett, M.B. (prematurely), of a son, stillborn.

DAVIES.—On the 4th inst., at Cwm Dows House, Newbridge, near Newport, Mon., the wife of W. H. Davies, Surgeon, of a son.

FIRTH.—On the 3rd inst., at St. Giles-street, Norwich, the wife of Charles Firth, F.R.C.S., of a daughter.

FLOWER.—On the 10th inst., at Lincoln's-inn-fields, the wife of William Henry Flower, LL.D., F.R.S., of a daughter (Augusta Frances).

FRASER.—On the 11th inst., at 7, Lower Church-road, Weston-super-Mare, Somerset, the wife of Graeme B. Fraser, M.R.C.S.E., L.S.A.L., of a son.

RIDPATH.—On the 2nd inst., at Great Driffield, Yorks, the wife of David Ridpath, M.D., of a son.

SWAIN.—On the 8th inst., at the Three Counties Asylum, the wife of Edward Swain, Medical Superintendent, of a daughter.

TURNBULL.—On the 30th ult., at Kelso, N.B., the wife of G. H. Turnbull, M.D., of a son.

WALKER.—On the 29th ult., at The Elms, Parkhurst, Isle of Wight, the wife of George E. Walker, L.R.C.P., of a daughter.

WRIGHT.—On the 2nd inst., at Alexandra-road, Southport, the wife of Strethill H. Wright, M.D., of a son.

MARRIAGES.

BLAKE—MOUNSEY.—On the 28th ult., at Goosnargh Church, Lancashire, Henry Blake, M.B., of Great Yarmouth, eldest son of Ethelbert H. Blake, M.D., Deputy Inspector-General A.M.D., to Lucy Agnes, eldest surviving daughter of Lieut.-Col. Mounsey, of Ingle-white Lodge, Preston, Lancashire.

PERKINS—HARPER.—On the 4th inst., at St. Stephen's, Lewisham, Whitefield Perkins, M.R.C.S.E. &c., of Glastonbury, Somersetshire, second son of J. R. Perkins, Esq., of Birdbush, Salisbury, to Constance Evelyn, youngest daughter of E. Norton Harper, Esq., of Northbrook House, Lee, Kent.

DEATHS.

BARRETT.—On the 7th inst., at Pierrepoint street, Bath, J. Barrett, F.R.C.S.E., aged 69.

BAYES.—On the 8th inst., at New Walsingham, Norfolk, Frederick Thomas Bayes, M.R.C.S.E., elder son of F. H. Bayes, M.R.C.S.E., aged 22.

FALCONER.—On the 6th inst., at his residence, Bennett-street, Bath, Randle Wilbraham Falconer, M.D., F.R.C.S., Hon. D.C.L., of Durham, youngest son of the late Rev. Thomas Falconer, M.D., of Leighton, Cheshire.

MORE.—On the 11th inst., at Rothwell, Northamptonshire, the youngest daughter of James More, M.D., aged 4 years.

NEVILLE.—On the 8th inst., at Chorley, Lancashire, Amy, the beloved wife of J. J. Neville, L.R.C.P.Ed., L.R.C.S.Ed., in her 29th year.

SMITH.—On the 3rd inst., at Rowlands, St. Mary Cray, Thomas Heckstall Smith, F.R.C.S., in his 75th year.

N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Stewart's Instruments.)

THE LANCET OFFICE, May 12th, 1881.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Dry Bulb	Wet Bulb	Solar Radia in Vacuo	Max. Temp Shade	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
May 6	30·30	W.	58	54	106	70	48	..	Cloudy
,, 7	30·59	W.	55	51	99	71	45	..	Hazy
,, 8	30·64	N.W.	50	51	101	69	47	..	Bright
,, 9	30·60	N.E.	52	46	97	69	42	..	Cloudy
,, 10	30·73	N.E.	47	41	77	55	39	..	Cloudy
,, 11	30·66	N.E.	45	41	78	60	35	..	Cloudy
,, 12	30·43	E.	53	46	97	64	40	..	Fine

Medical Diary for the ensuing Week.

Monday, May 16.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.; on Tuesday, 9 A.M.

SOCIETY FOR THE ENCOURAGEMENT OF ARTS, MANUFACTURES, AND SCIENCES.—Cantor Lectures: Mr. R. Brudenell Carter, "On Colour Blindness and its Influence upon various Industries."

Tuesday, May 17.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION.—3 P.M. Professor Dewar, "On Non-Metallic Elements."

PATHOLOGICAL SOCIETY OF LONDON.—(Last Meeting of the Session.)—8½ P.M. The following specimens will be shown:—Case of Intestinal Obstruction; Tumour of Brain, with Polyuria; Heart with Calcareous Plates; Aneurism of Pulmonary Artery; Aneurism of Middle Cerebral; Aneurism of Posterior Communicating; Heart with Aneurism; Case of Pylephlebitis; Ulcer of Stomach in Infant; Partial Dislocation of Astragalus; Fracture of Astragalus; Dissection of Genu Valgum; Syphilitic Disease of Cerebral Vessels; Case of Pseudarthrosis; Lymph Scrotum showing Filariæ; Keloid Tumours of Ears; Specimens of Elephantiasis, &c.; Malformation of the Heart.

Wednesday, May 18.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.

ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.

ST. MARY'S HOSPITAL.—Operations, 1½ P.M.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at 1 P.M.

LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.

GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.

ASSOCIATION OF SURGEONS PRACTISING DENTAL SURGERY.—7.45 P.M. Council Meeting.—8.30 P.M. Ordinary Meeting.

SANITARY INSTITUTE OF GREAT BRITAIN.—8 P.M. Dr. Richardson, "On Suggestions for the Management of Cases of Small-pox and of other Infectious Diseases in the Metropolis and large Towns."

Thursday, May 19.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M.

NORTH-WEST LONDON HOSPITAL.—Operations, 2½ P.M.

ROYAL INSTITUTION.—3 P.M. Professor Tyndall, "On Magnetism."

HARVEIAN SOCIETY.—8½ P.M. Mr. J. Ernest Lane, "On Two Cases of Popliteal Aneurism."—Dr. G. C. Henderson, "On Cold Bathing in Acute Fevers."

Friday, May 20.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION.—3 P.M. Mr. W. H. Pollock, "On Shakspeare Criticism."

Saturday, May 21.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION.—3 P.M. Professor C. E. Turner, "On Russian Literature: Pouschkin."

Notes, Short Comments, and Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Local papers containing reports or news-paragraphs should be marked.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

Lectures, original articles, and reports should be written on one side only of the paper.

We cannot prescribe, or recommend practitioners.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

EXAMINATIONS AT THE ROYAL COLLEGE OF SURGEONS.

THE following were the questions submitted to the 143 candidates at the Primary or Anatomical and Physiological Examination for the diploma of Membership of the College, on the 6th instant, when they were required to answer four, and not more than that number, of the six questions, from 1 to 3 o'clock, in Anatomy:—

1. Describe the greater wing of the sphenoid bone.
2. Enumerate the joints in which interarticular fibro-cartilages are found. Describe the shape and attachments of each of these fibro-cartilages.
3. Describe the serratus magnus muscle, its attachments and relations.
4. Describe the course and relations of the abdominal aorta. Enumerate its branches in the order in which they are given off.
5. Give the dissection necessary to expose the external and internal plantar nerves.
6. Describe the general conformation of the thyroid body, and give its relations.

The following were the questions in Physiology, from 4 to 6 o'clock:—

1. What is meant by the impulse of the heart? how is it produced? State the method by which it can be graphically demonstrated.
2. What are the immediate and remote results on respiration of section of both pneumogastric nerves in the neck? How may these results be explained?
3. Describe the structure of dentine, and the contents of the pulp-cavity of a tooth.
4. What is meant by a ferment? What ferments exist in the human body? State the general and special conditions requisite for their action.
5. Describe the phenomena of accommodation. What is meant by the terms emmetropia, hypermetropia, myopia, and presbyopia?
6. How is the movement of the blood maintained in the veins? How does the venous current differ from the arterial?

Therapeutist (Dublin).—Yes; resorcine has been employed in cholera infantum, we believe by physicians in Breslau, who report favourably of the action of the drug in the disease.

SPONTANEOUS EVOLUTION.

To the Editor of THE LANCET.

SIR,—Having recently had an interesting case of the above type, I take the liberty of sending the particulars for publication, for though I have been in practice for nearly fifty years, and had a large amount of midwifery, I have not met with one case that terminated as this did. I was called to the wife of a collier at Brotherton, near this village, on April 19th, at 3 P.M. A midwife was first sent for, and she, perceiving the nature of the case, sent for me; and on my arrival I found the right arm and shoulder down very low. The membranes were ruptured at 11 A.M. The poor woman had strong pains, so I gave sixty drops of tincture of opium at once, and after waiting a short time introduced my hand, but found decided hour-glass contraction, which prevented my reaching the fundus uteri to grasp a foot. I then decided to give chloroform, and though I administered the drug freely, I did not get my patient fully under its influence, for whilst I was applying it, she said, "It is coming." I had not attempted turning for twenty minutes, and now, on examination, I found the breech down, and the arm drawn up, so the delivery was soon effected. The child was dead and premature (eight months), the arm and shoulder very black and swollen. I am glad to say the patient did well. I think this is a decided case of "spontaneous evolution," as described by Dr. Denman.

I am, Sir, yours respectfully,

Ferry-bridge, Yorkshire, May 2nd, 1881. WILLIAM R. LOMAS

MEDICINE AMONGST THE CELESTIALS.

MR. MACGREGOR, who has been for sixteen years working as a medical missionary at Amoy, speaking recently at a meeting of students in Edinburgh, said: "The dense and crowded population, and the filthy condition of the people of China, constitute a fruitful source of skin disease, which is very common, so much so, that the Chinese themselves have a proverb—'out of ten men, *eleven* of them have the itch.' Various forms of eye disease are very prevalent, and to cure these the native doctors are quite helpless. Some complaints are due to climatic causes, as, for instance, dysentery and malarious fever. All kinds of tumours are common, and present an excellent opportunity for showing the superiority of European skill, as surgery is quite unknown to the native doctor, who invariably prescribes so much medicine to be swallowed, whether the trouble is an aching head or a broken limb. The practice of the native doctors sometimes tries the patience of the medical missionary very much. The usual way for a Chinaman to enter the profession is to procure a pair of spectacles with large bone rims, some grasses and herbs, an assortment of spiders and a few venomous snakes in bottles, which are placed in the shop window; then the medicine he gives *must* be nasty, and there should be plenty of it, as the Chinese go in for quantity, and reckon how they should be getting on by the amount they have taken. If not making satisfactory progress, he applies to a new doctor, but still continues to take the medicine prescribed by the one he first consulted, so that unless he is under your entire control, he may be taking your medicine, but in all likelihood he is, at the same time, dosing himself with the nostrums of half-a-dozen ignorant charlatans."

VACCINE LYMPH.

To the Editor of THE LANCET.

SIR,—After slowly drying the ivory points, properly charged with the vaccine lymph, I place them in a two-drachm bottle, in the bottom of which a pledget of cotton-wool has been previously placed. Another morsel of cotton-wool is put into the bottle before closing it with an accurately fitting cork. My failures with points thus preserved in China as well as in this country) have been very rare indeed, and I now never use tubes for preserving vaccine virus.

I am, Sir, yours truly,

Shepton Mallet, May 10th, 1881. F. PORTER SMITH.

To the Editor of THE LANCET.

SIR,—I should be glad to know, through the medium of your columns, whether other vaccinators have been unsuccessful in their vaccinations, as I have been, when using the vaccine lymph supplied by the National Vaccine Establishment.—I am, Sir, yours, &c.,

April 27th, 1881. A PUBLIC VACCINATOR.

THE EFFICACY OF SOLID OPIUM IN THE TREATMENT OF ENTERITIS.

To the Editor of THE LANCET.

SIR,—During this severe winter many cases of acute and chronic enteritis have come under my notice, which were treated in the usual way with fomentations and terebinthine counter-irritants. In the management of all these, however, my sheet anchor has been solid opium, the effect of which has ever been most satisfactory.

My object in writing this is to express how much I value the solid form of the opiate over all others in abdominal mischief, and this plan of treatment some time ago I was led to adopt in consequence of its success in a case of serious traumatic abdominal mischief—inflammation both enteric and peritoneal.

The case was this. Mrs. N——, whom I had attended for over twenty years with tertiary syphilis, ultimately got stricture of the rectum, evidently of a syphilitic character; and, besides using the ordinary medicinal treatment for this disease, she was ordered to have applied a rectal bougie daily, commencing at No. 2 and reaching to No. 6. This was done by an efficient nurse for several months, with the best effects, but the nurse being called away on private business, the office was delegated to one who did not understand, properly, the use of a bougie; and one evening in passing it, instead of going through the stricture, she pushed it through the bowel. The consequence was collapse. When I saw the patient an hour afterwards she was in great pain, pulseless, with a cold clammy skin, and unable to speak. Examining the bowel, I could feel the opening, and made certain of the amount of mischief done. Stimulants were given freely, and as soon as the patient rallied one grain of solid opium every hour, with fomentations and turpentine stupes. This treatment was continued, with certain modifications, for a fortnight, with the pleasant result of her complete recovery. Altogether during the fourteen days she took eighty grains of solid opium, and although this happened four years ago, she is now quite well.

My remarks point to this one fact—that the use of solid opium in such cases is more efficacious in the treatment of these diseases than opium in a liquid form either by mouth or hypodermically, and if administered by the mouth more serviceable than when used as a suppository.

There is no novelty in the use of solid opium in such cases, as it has long been a recognised fact in the profession as a "truism" in the treatment of all abdominal diseases.

I am, Sir, yours truly,

April 19th, 1881. JAMES WILLIAMSON, M.D.

CONCURRENT VARIOLA AND VACCINIA.

To the Editor of THE LANCET.

SIR,—The following case seems to me curious, not to say rather startling. O. H——, a strong, healthy, young man of twenty, working in a small-pox infected district, was vaccinated on April 26th. All the signs of successful vaccination were developed. On May 5th the eruption of small-pox appeared, and he now lies under my care with a severe confluent attack.

Presumably the incubation of small-pox began prior to his vaccination, but is it not singular that the incubation of the one and the course of the other should have been concurrent, and equally strange that the most severe form of the disease should have manifested itself? Or is there anything in the theory of worn-out lymph being capable of producing outward signs alone?—I am, Sir, your obedient servant,

May 10th, 1881. IN PERPLEXITY.

SANITATION IN CANNES.

To the Editor of THE LANCET.

SIR,—I have read in the *Italian Times* an extract from your paper giving an account of the intended improvements in the drainage of Cannes. Will you allow me to draw attention to the fact that so long as the authorities permit the sewers to empty themselves into the tideless sea, the promenade and houses near it will get more and more unbearable. I am, Sir, yours truly,

Hôtel des Iles Borromées, Stresa, WALTER HORNBLOWER.
April 28th, 1881.

A CORRECTION.

To the Editor of THE LANCET.

SIR,—In your report of my paper on Acute Prostatitis in the proceedings of the London Medical Society, published in THE LANCET of this date, the term "prostatic tissues" twice appears instead of "prostatic *sinus*." Perhaps you will allow me to make this correction, otherwise my description of a somewhat rare affection simulating prostatitis is almost unintelligible.—I am, Sir, your obedient servant,

Liverpool, May 7th, 1881. REGINALD HARRISON.

Enquirer.—The report should be written on the same lines as the Instructions of the Local Government Board require for the annual report. If our correspondent has not the Instructions, he should apply to the secretary of the Local Government Board for a copy.

P. R. has omitted to enclose his card.

"A PRACTICAL PHASE OF THE LUNACY QUESTION."

To the Editor of THE LANCET.

SIR,—I read with much pleasure your admirable article on the general treatment of the inmates of our public asylums (see THE LANCET, May 7th, page 749), and am glad to offer my humble testimony to its truthfulness and accuracy. It may be well to go even a step further, and ask why this state of things should exist. The fault lies, as you clearly point out, in the system; yet it is the system on which the managers and committees pride themselves which is at the root of the evil. It may also be remarked, as a rule we do not find that first-rate men in the profession are attracted to this particular department; perhaps it would be difficult, without being invidious, to name any public asylum in which men of leading ability and high professional talent are found. With this drawback there undeniably exists the recognised principle of making things pleasant for all parties: the committee of management, superintendents, general officials, and patients included. To read the annual reports anyone must be struck by the conviction that the pervading tone belongs to the members of a mutual admiration society, and this is kept up by the entire programme on which these establishments are conducted. The lay element of "moral" treatment is everywhere; the medical or scientific nowhere. As the chairman of one of these institutions once remarked to me, we do not want medical skill for the treatment of disease; the general routine of management is most important. Routine is the alpha and omega of modern asylum practice. Reports, daily and nightly; registers, note-books, forms without end; methodical arrangements; wheels within wheels; inspection and introspection; checks and counterchecks! You observe that "accidents" can scarcely be said to be numerous; it is still more remarkable how very few are heard of. Of course this happy result may be due to the skilful supervision. *Rixum teneatis!* Method and discipline are important factors, and cannot be despised, but they do not altogether constitute "psychological medicine."

Something might be done by relieving the superintendent, not, as at present, by giving him subordinates who, if anything, add to his labour, but by dividing the charge into sections of two or three hundred patients, each under a separate medical officer who is responsible only to the committee of management, and three hundred is a sufficient number of patients for the conscientious attention of one man. It may be naturally objected that this plan necessitates smaller salaries; no doubt it would, but it should be also remembered the work is not for the man, but the man for the work, and large salaries do not imply higher results. In these the present system is lamentably deficient; it has been tried and found wanting. A new system is required.

I am, Sir, your obedient servant,

May 11th, 1881. EX-SUPERINTENDENT.

CASES OF HÆMORRHAGE AFTER THE EXTRACTION OF TEETH.

To the Editor of THE LANCET.

SIR,—I think the attention of dentists should be drawn to the many and serious cases of hæmorrhage that occur after the extraction of teeth.

During the last year my partner and I have been sent for to attend no less than six cases of this sort, in which nothing short of plugging the cavity sufficed to stop the bleeding. Such cases are sometimes really formidable, owing to the delay in sending for assistance, either from the impression that the hæmorrhage will soon cease spontaneously, or that some wash supplied by the nearest chemist will suffice.

I would suggest that dentists should satisfy themselves as to the complete cessation of bleeding in all cases of extraction before dismissing their patients, and should also give implicit directions about sending for professional aid without delay in the event of the recurrence of the hæmorrhage.—I am, Sir, yours faithfully,

Albion-street, Hyde-park-square, W., M. PRICKETT, M.D.
April 25th, 1881.

Dr. Wm. Thurefield.—We are sorry that our space will not permit us to publish the correspondence. It is strange that no communication has been received from the surgeon consulted, and this in two cases. We hope the remonstrance will be effectual.

H. S.—The disease is perfectly well known and recognised by medical men. Our correspondent should consult his own adviser and take his counsel in the matter.

UNQUALIFIED ASSISTANTS.

To the Editor of THE LANCET.

SIR,—Medical reform is the question of the hour of the nineteenth as it was of the eighteenth century medical world. I trust we shall have more success than our ancestors. Medical reform has a wide range. There is one aspect I should like to bring under your notice—viz., medical reform in its relation to the internal life of the profession. A short sketch of the inner economy of a certain section of the medical world in northern towns will certainly be novel, and may prove interesting to you. I wish to direct your attention to the following points.

A. We grumble at quacks and quackery, prescribing chemists, and others who violate the Medical Acts. Do we take into account the number of unqualified practitioners who are offending against the law inside the profession? In the small northern town from which I write there are twenty legally qualified practitioners, ten of whom have unqualified assistants. Some of the latter have been promoted from behind the counter of chemists' shops; some have spent a year or two at a medical school, and you meet them driving about with more than the airs of Fellows of the College of Surgeons of England. I need hardly say that these assistants are (1) violating the law; (2) imposing upon the public; (3) robbing the qualified men; (4) that their principals must almost necessarily commit actions liable to imprisonment—viz., signing certificates for deaths of patients they have never attended. The profession is said by some to be overcrowded. I deny it. There is work for all our qualified practitioners, but their place is usurped by those who have no right to practise, and whose employment is an injury and imposition upon the public. In addition to many excellent reforms proposed, I will add another—"that the abolition of unqualified assistants is imperatively demanded in the interests of the public and the profession."

B. You may ask how does it pay to keep unqualified assistants? In this wise. When a practitioner has more work than he can do, he engages for a wretched pittance one of these assistants, who keeps the books, makes up medicines, visits, and attends midwifery. The principal is thus able to do a larger practice and to handicap his qualified competitors. Unfortunately, owing to the want of education, the "doctor's man" goes down very well with the working classes. In a large practice low fees are charged, such as consultations at home and medicine, 1*s.* 6*d.*; visits and medicine, 2*s.* or 2*s.* 6*d.*; midwifery, 10*s.* 6*d.* to 15*s.*; clubs, 2*s.* 6*d.* or 3*s.* per head per annum. The assistant does a large share of this work. In a large practice of this kind there are, of course, a great number of bills to be sent out. A lower depth of degradation is reached in connexion with these bills. A "collector" is employed, to whom is entrusted the gathering in of a large number of these accounts. He calls round at the patients' homes weekly or fortnightly, and receives the money in instalments of 6*d.*, 1*s.*, 2*s.*, &c., until the account is paid off. If the collector finds any bad payers, the county court is resorted to, and the county court judge comes to the aid of the "doctor" (!) by making an order at the rate of so much—say 2*s.* 6*d.* per month. There is no trade conducted on such principles—no bootmaker, tailor, butcher, or baker would descend to such a method of conducting his business. I need hardly say that chemists have no necessity for such a method of payment; in fact, they smile at the professional men (!) who employ these collectors to gather in the money earned by their unqualified assistants, and chemists pride themselves on not having reached such a depth of degradation as to have to resort to such a practice. All the chemists here know the truths I am detailing to you. Internal reform in this direction is also needed. We want more of the professional spirit and more self-respect to put an end to such evils.

I am, Sir, yours faithfully,

April 14th, 1881. VERITAS.

MISSED LABOUR.

To the Editor of THE LANCET.

SIR,—Seeing the discussion on "Missed Labour" in your journal, and thinking the following case may be of interest, I send it. I was asked by the clergyman of the parish to see a poor woman who was suffering, as he imagined, from an abdominal tumour. The history of the case was that the woman became pregnant, and distinctly felt the child up to the ninth month, when the movements ceased. The abdomen continued to remain in the same enlarged condition for six months longer, when I saw her, and diagnosed "missed labour." I ruptured the membranes, and twenty-four hours after she was delivered of a full-term child, having all the appearance of being in the uterus the time stated.

I am, Sir, yours, &c.,

Wareham, Dorset, May 10th, 1881. W. T. BOREHAM, M.D.

SPECIFICITY AND EVOLUTION IN DISEASE.

To the Editor of THE LANCET.

SIR,—Your editorial comments on "Blood Diseases and the Germ Theory," in a recent number of THE LANCET, induce me to send you the following reflections on the collateral question as to how far our commonly accepted notions of specificity of diseases should be modified by the doctrine of evolution.

This doctrine, which has so rapidly and entirely altered the face of the organic world, as we conceive it, has as yet made but a feeble impression, if any, on medical science and pathology.

The importance of the principle of specificity in disease has been clearly and generally recognised since the time of Laennec and Bretonneau; Trousseau, in one of his clinics devoted to the subject, remarks of specificity, "Elle domine toute la pathologie, toute la thérapeutique; en un mot, toute la médecine." And the same belief, tacit or avowed, would seem to pervade all modern medical literature.

Now, the argument upon which medical writers base their theory of specificity consists in an appeal to the analogy which exists between the natural history of diseases and the natural history of animals and plants. In the words of Sydenham, "Unaquæque mortorum non minus quam animalium aut vegetabilium species affectiones sibi proprias perpetuas ac pariter univocas ab essentia sua promanantes sortita est;" and until the last few years no better argument was possible.

Since, however, as regards the organic world, we have come to speak of an origin of species, and learnt to trace their differentiation under the influence of evolution to the eventual survival of the fittest, I would ask, should not our views concerning specificity of diseases undergo a similar modification? Is not the theory of specificity swallowed up in the larger theory of evolution? As with animals, so with diseases; may we not henceforth regard the several species and genera as descendants from a common ancestor? Starting from a non-specific inflammation or fever, may there not arise therefrom under favourable conditions an inflammation or a fever different from the parent stock, and capable of reproducing itself? I think so. Look at tubercle, a disease characterised by such well-marked features as to have been long since classed as a specific disorder, but whose natural history, revealed by the experiments of Cohnheim, Burdon-Sanderson, and others, shows that it may be derived by cultivation from the simplest common inflammation as that resulting from a chemical irritant; the non-specific has developed specific characters, the homogeneous become the heterogeneous. So it is with other diseases; even the ordinary stages of a common inflammation, pimple, vesicle, pustule, or scab, foreshadow and typify diseases which we call specific, wherein one or other of the stages predominate, while the rest are subordinate. The common ancestry of specific diseases once recognised would do much to remove the hard and fast line so often drawn between disease and disease in text-books and dissertations, but of which nature knows nothing.

I am, Sir, yours obediently,

W. J. COLLINS, B.Sc., M.R.C.S.

St. Bartholomew's Hospital, April 23rd, 1881.

430.—If our correspondent has not forgotten his letter of March, 1880, he can hardly be surprised that we should hesitate to accept as entirely accurate the statements contained in that of April 11th. If they are correct, we believe that a representation to the authorities of the injustice involved in the course complained of would meet with proper attention.

W. G. G.—Wilson's "Handbook of Hygiene and Sanitary Science," published by Messrs. J. and A. Churchill.

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